



INSTRUMENT APPROACH PROCEDURE CHARTS



IFR ALTERNATE AIRPORT MINIMUMS

Standard alternate minimums for non-precision approaches and approaches with vertical guidance [NDB, VOR, LOC, TACAN, LDA, SDF, VOR/DME, ASR, RNAV (GPS) or RNAV (RNP)] are 800-2. Standard alternate minimums for precision approaches (ILS, PAR, or GLS) are 600-2. Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility, absence of weather reporting service, or lack of adequate navigation coverage. Civil pilots see FAR 91. IFR Alternate Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Minimums Notes for alternate airfield suitability.

NAME ALTERNATE MINIMUMS

ALICE, TX

ALICE INTL (ALI) .....LOC/DME Rwy 31<sup>1</sup>  
RNAV (GPS) Rwy 13<sup>1</sup>  
RNAV (GPS) Rwy 31<sup>1</sup>  
VOR-A<sup>2</sup>

<sup>1</sup>NA when local weather not available.  
<sup>2</sup>Categories A, B, 900-2; Category C, 900-2½, Category D, 900-3.

ALPINE, TX

ALPINE-CASPARIS  
RGNL (E38) .....RNAV (GPS) Rwy 19  
NA when local weather not available.  
Category C, 1500-3

AUSTIN, TX

AUSTIN  
EXECUTIVE (EDC) .....RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 31  
NA when local weather not available.

AUSTIN-BERGSTROM

INTL (AUS) .....ILS or LOC Rwy 17L<sup>1</sup>  
ILS or LOC Rwy 17R<sup>1</sup>  
ILS or LOC Rwy 35L<sup>1</sup>  
ILS or LOC Rwy 35R<sup>1</sup>  
RNAV (GPS) Y Rwy 17L<sup>2</sup>  
RNAV (GPS) Y Rwy 17R<sup>2</sup>  
RNAV (GPS) Y Rwy 35L<sup>2</sup>  
RNAV (GPS) Y Rwy 35R<sup>2</sup>

<sup>1</sup>ILS, Category E, 700-2½. LOC, Category E, 800-2½.  
<sup>2</sup>Category E, 1000-3.

NAME ALTERNATE MINIMUMS

AUSTIN, TX (CON'T)

SAN MARCOS  
REGIONAL (HYI) .....RNAV (GPS) Rwy 8  
RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 17  
RNAV (GPS) Rwy 26  
RNAV (GPS) Rwy 31  
RNAV (GPS) Rwy 35

NA when local weather not available.  
Category D, 800-2½; Category E, 800-2½.

BRADY, TX

CURTIS FIELD (BBD) .....RNAV (GPS) Rwy 17  
RNAV (GPS) Rwy 35  
NA when local weather not available.

BROWNSVILLE, TX

BROWNSVILLE/SOUTH PADRE ISLAND  
INTL (BRO) .....ILS or LOC Rwy 13<sup>12</sup>  
LOC BC Rwy 31<sup>1</sup>  
RNAV (GPS) Rwy 13  
RNAV (GPS) Rwy 18

NA when local weather not available.  
<sup>1</sup>NA when control tower closed.  
<sup>2</sup>ILS, Category D, 700-2.

BROWNWOOD, TX

BROWNWOOD  
RGNL (BWD) .....RNAV (GPS) Rwy 17  
RNAV (GPS) Rwy 35  
NA when local weather not available.

BURNET, TX

BURNET MUNI/KATE CRADDOCK  
FIELD (BMQ) .....RNAV (GPS) Rwy 1  
RNAV (GPS) Rwy 19  
NA when local weather not available.  
Category C, 800-2½.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017











17173

NAME	ALTERNATE MINIMUMS	NAME	ALTERNATE MINIMUMS
<b>WACO, TX (CON'T)</b>			

TSTC WACO (CNW) ..... **NDB Rwy 35R<sup>1</sup>**  
**RNAV (GPS) Rwy 17L**  
**RNAV (GPS) Rwy 35R**

NA when local weather not available.  
<sup>1</sup>NA when control tower closed.

WACO RGNL (ACT) ..... **ILS or LOC Rwy 19<sup>1</sup>**  
**RNAV (GPS) Rwy 1**  
**RNAV (GPS) Rwy 14**  
**RNAV (GPS) Rwy 19**  
**RNAV (GPS) Rwy 32**  
**VOR/DME Rwy 32**

NA when local weather not available.  
<sup>1</sup>NA when control tower closed.

**WESLACO, TX**

MID VALLEY (T65) ..... **RNAV (GPS) Rwy 14**  
NA when local weather not available.  
Category D, 900-2<sup>3</sup>/<sub>4</sub>.

**WINK, TX**

WINKLER  
COUNTY (INK)..... **RNAV (GPS) Rwy 13<sup>1</sup>**  
**RNAV (GPS) Rwy 31<sup>1</sup>**  
**VOR Rwy 13**

NA when local weather not available.  
<sup>1</sup>Category C, 800-2<sup>3</sup>/<sub>4</sub>.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017



## RADAR MINS

17173

## RADAR INSTRUMENT APPROACH MINIMUMS

**BIGGS AAF (KBIF)**, TX (Fort Bliss) (Amdt 6A, 15288 USA)

ELEV 3948

RADAR - 124.15 307.0 **T** **A** NA

	<u>RWY</u>	<u>GS/TCH/RPI</u>	<u>CAT</u>	DH/	HAT/	<u>CEIL-VIS</u>
				<u>MDA-VIS</u>	<u>HAA</u>	
ASR <sup>1</sup>	21		AB	<b>4360</b> -½	412	(500-½)
			CD	<b>4360</b> -¾	412	(500-¾)
CIR <sup>2</sup>	21		E	<b>4360</b> -1	412	(500-1)
			AB	<b>4400</b> -1	452	(500-1)
			C	<b>4400</b> -1½	452	(500-1½)
			DE	<b>4500</b> -2	552	(600-2)

CAUTION: Steeply rising terrain exceeding 7100 ft 4 miles W of airport.

<sup>1</sup>When ALSF inop, increase CAT E visibility to 1½.<sup>2</sup>CAT E circling W of Rwy 3-21 not authorized.**CORPUS CHRISTI NAS (KNGP)**, (TRUAX FIELD) TX (16315 USN)

ELEV 19

RADAR - (E) 6835 124.65 270.8 284.6 337.2 354.8 **T**

	<u>RWY</u>	<u>GS/TCH/RPI</u>	<u>CAT</u>	DH/	HAT/	<u>CEIL-VIS</u>
				<u>MDA-VIS</u>	<u>HAA</u>	
PAR <sup>1</sup>	13R <sup>2</sup>	3.0°/41/781	ABCDE	<b>110</b> -¼	100	(100-¼)
	31L	3.0°/43/820	ABCDE	<b>117</b> -½	100	(100-½)
	35	3.0°/45/835	ABCDE	<b>117</b> -½	100	(100-½)
	17	3.0°/39/700	ABCDE	<b>131</b> -½	118	(200-½)
PAR W/O GS <sup>1</sup>	17		ABCDE	<b>300</b> -1¼	287	(300-1¼)
	13R <sup>3</sup>		ABCDE	<b>360</b> -1	350	(400-1)
	31L		ABCDE	<b>420</b> -1¼	403	(500-1¼)
	35		ABCDE	<b>440</b> -1¼	423	(500-1¼)
PAR W/O GS SIDESTEP <sup>1 5</sup>	13L		ABCDE	<b>360</b> -1½	347	(400-1½)
	31R		ABCDE	<b>400</b> -1¼	382	(400-1¼)
ASR	13L		ABCDE	<b>380</b> -1	367	(400-1)
	13R <sup>4</sup>		AB	<b>440</b> -¾	430	(500-¾)
			CDE	<b>440</b> -1	430	(500-1)
			ABCDE	<b>360</b> -1	347	(400-1)
	17		AB	<b>500</b> -1	482	(500-1)
			CDE	<b>500</b> -1½	482	(500-1½)
			ABCDE	<b>500</b> -1	483	(500-1)
	31L		CDE	<b>500</b> -1½	483	(500-1½)
			AB	<b>500</b> -1	483	(500-1)
			CDE	<b>500</b> -1½	483	(500-1½)
	35		AB	<b>500</b> -1	483	(500-1)
			CDE	<b>500</b> -1½	483	(500-1½)
		AB	<b>500</b> -1	483	(500-1)	
4		CDE	<b>500</b> -1½	483	(500-1½)	
		AB	<b>500</b> -1	483	(500-1)	
		CDE	<b>500</b> -1½	483	(500-1½)	
CIR <sup>5</sup>	ALL RWYS		A	<b>500</b> -1	481	(500-1)
			B	<b>500</b> -1¼	481	(500-1¼)
			C	<b>540</b> -1½	521	(600-1½)
			D	<b>620</b> -2	601	(700-2)
			E	<b>620</b> -2¼	601	(700-2¼)

(CONTINUED ON NEXT PAGE)

SC-3

## RADAR INSTRUMENT APPROACH MINIMUMS

## RADAR MINS

17173

# RADAR MINS

17173

## RADAR INSTRUMENT APPROACH MINIMUMS

### CORPUS CHRISTI NAS (KNGP) (CON'T) (TRUAX FIELD) TX

<sup>1</sup>No-NOTAM MP: PAR Mon 1300-1800Z++.

<sup>2</sup>When ALS inop, increase vis CAT ABCDE to ½ mile.

<sup>3</sup>When ALS inop, increase vis CAT ABCDE to 1¼ miles.

<sup>4</sup>When ALS inop, increase vis CAT AB to 1 mile, CAT CDE to 1¼ miles.

<sup>5</sup>Circling fr Sidestep NA. Sidestep NA prior to 2 miles fr touchdown.


<sup>6</sup>Circling authorized only from ASR and PAR W/O GS. When circling from PAR W/O GS increase CAT A vis to 1¼ miles.

### EL PASO, TX

Amdt 15A, 03APR14 (14317) (FAA)

ELEV 3962

### EL PASO INTL (ELP)

RADAR-1 124.25 298.85 

	<u>RWY</u>	<u>GP/TCH/RPI</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATh/</u> <u>HAA</u>	<u>CEIL-VIS</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATh/</u> <u>HAA</u>	<u>CEIL-VIS</u>
ASR	22		AB	4320/24	371	(400-½)	CDE	4320/35	371	(400-¾)
	26L		ABCDE	4400-¾	438	(500-¾)				
	4		AB	4400/55	483	(500-1¼)	CDE	4400-1%	483	(500-1¾)
CIRCLING ALL RWY			A	4420-1	458	(500-1)	B	4460-1	498	(500-1)
			C	4460-1½	498	(500-1½)	D	4540-2	578	(600-2)
			E	4660-2½	698	(700-2½)				

Circling NA for CATS D and E west of Rwy 4-22.

For inoperative MALS, increase S-22 CAT C/D/E visibility to RVR 5500; increase S-26L CAT A/B visibility to 1 mile and CAT E visibility to 1¼ miles.


CAUTION: Steeply rising terrain 4.5 NM west of airport.

### FORT HOOD/KILLEEN, TX

Orig, 12JAN12 (14317) (FAA)

ELEV 1015

### ROBERT GRAY AAF (GRK)

RADAR-1 - 120.075 323.15  NA

	<u>RWY</u>	<u>GP/TCH/RPI</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATh/</u> <u>HAA</u>	<u>CEIL-VIS</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATh/</u> <u>HAA</u>	<u>CEIL-VIS</u>
ASR	33		AB	1460-½	486	(500-½)	CDE	1460-1	486	(500-1)
	15		AB	1520/24	505	(600-½)	CDE	1520/55	505	(600-1¼)
CIRCLING ALL RWY			AB	1520-1	505	(600-1)	C	1560-1½	545	(600-1½)
			D	1580-2	565	(600-2)	E	1740-2½	725	(800-2½)

Circling NA west of Rwy 15-33.

For inoperative MALS, increase ASR 15 and ASR 33 CATS C,D, and E visibility to 1% mile.

SC-3

## RADAR INSTRUMENT APPROACH MINIMUMS

# RADAR MINS

17173

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

# RADAR MINS


17173

## RADAR INSTRUMENT APPROACH MINIMUMS

**FORT HOOD/KILLEEN, TX** Orig, 12JAN12 (14317) (FAA)

ELEV 1015

**ROBERT GRAY AAF (GRK)**

RADAR-2 - 120.075 323.15  NA

PAR	<u>RWY</u>	<u>GP/TCH/RPI</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATH/</u> <u>HAA</u>	<u>CEIL-VIS</u>
	15		3.00°/51/1062	ABCDE	<b>1215/24</b>	200
33		3.00°/53/973	ABCDE	<b>1187-½</b>	213	(300-½)

PAR 15-VGSI and PAR glidepath not coincident.

For inoperative MALSR, increase PAR 15 CAT E visibility to RVR 4000 and PAR 33 CAT E visibility to ¾ mile.

**KINGSVILLE NAS (KNQI), TX** (14317 USN)

ELEV 50

RADAR<sup>1</sup> - (E) 128.45x 300.4x 305.2x 310.8x 322.0x 325.2x 358.0x 363.6x 384.4x

PAR <sup>6</sup>	<u>RWY</u>	<u>GS/TCH/RPI</u>	<u>CAT</u>	<u>DH/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATH/</u> <u>HAA</u>	<u>CEIL-VIS</u>
				35R <sup>2</sup>	3.0°/32/614	ABCDE
13L	3.0°/34/631	ABCDE	<b>148-½</b>	100	(100-½)	
13R	3.0°/31/610	ABCDE	<b>150-½</b>	100	(100-½)	
17L	3.0°/32/596	ABCDE	<b>148-½</b>	100	(100-½)	
17R	3.0°/34/640	ABCDE	<b>148-½</b>	100	(100-½)	
31L	3.0°/32/583	ABCDE	<b>141-½</b>	100	(100-½)	
31R	3.0°/36/671	ABCDE	<b>137-½</b>	100	(100-½)	
PAR W/O GS <sup>6</sup>	35R <sup>3</sup>		ABCDE	<b>340-¾</b>	293	(300-¾)
	17L		ABCDE	<b>320-1¼</b>	272	(300-1¼)
	17R		ABCDE	<b>320-1¼</b>	272	(300-1¼)
	31L		ABCDE	<b>320-1¼</b>	279	(300-1¼)
	31R		ABCDE	<b>320-1¼</b>	283	(300-1¼)
	13L		ABCDE	<b>460-1¼</b>	412	(500-1¼)
	13R		ABCDE	<b>460-1¼</b>	410	(500-1¼)
ASR	35R <sup>4</sup>		AB	<b>420-½</b>	373	(400-½)
			CDE	<b>420-¾</b>	373	(400-¾)
	17L		ABCDE	<b>340-1</b>	292	(300-1)
	17R		ABCDE	<b>400-1</b>	352	(400-1)
	31L		ABCDE	<b>360-1</b>	319	(400-1)
	31R		ABCDE	<b>360-1</b>	323	(400-1)
	35L		ABCDE	<b>420-1</b>	372	(400-1)
	13L		AB	<b>500-1</b>	452	(500-1)
			CDE	<b>500-1¾</b>	452	(500-1¾)
	13R		AB	<b>460-1</b>	410	(500-1)
			CDE	<b>460-1¾</b>	410	(500-1¾)
CIR <sup>5</sup>	ALL RWYS		AB	<b>520-1¼</b>	470	(500-1¼)
			C	<b>780-2</b>	730	(800-2)
			D	<b>780-2¼</b>	730	(800-2¼)
			E	<b>780-2½</b>	730	(800-2½)

(CONTINUED ON NEXT PAGE)

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

SC-3

## RADAR INSTRUMENT APPROACH MINIMUMS

# RADAR MINS

17173



# RADAR MINS

17173

## RADAR INSTRUMENT APPROACH MINIMUMS

### KINGSVILLE NAS (KNQI) (CON'T) TX

<sup>1</sup>Use landing/taxi lights when conducting apch during VMC.

<sup>2</sup>When ALS inop, increase vis CAT ABCDE to ½ mile.

<sup>3</sup>When ALS inop, increase vis CAT ABCDE to 1¼ mile.

<sup>4</sup>When ALS inop, increase vis CAT ABCDE to 1 mile.

<sup>5</sup>Circling authorized only from PAR W/O GS and ASR.


<sup>6</sup>No NOTAM MP: PAR 1300-1700Z++Mon. Maint conducted next bus day if clsd on Mon.


### MIDLAND, TX

Amdt 7, 22JUN17 (17173) (FAA)

ELEV 2872

### MIDLAND INTL AIR AND SPACE PORT (MAF)

RADAR-1 124.6 290.4 

	RWY	GP/TCH/RPI	CAT	HAT/ HATh/			CAT	HAT/ HATh/		
				DA/ MDA-VIS	HAA	CEIL-VIS		DA/ MDA-VIS	HAA	CEIL-VIS
ASR	28		AB	3280-¾	425	(500-¾)	CDE	3280-1	425	(500-1)
	34L		AB	3320-1	462	(500-1)	CDE	3320-1½	462	(500-1½)
	4		AB	3360-1	509	(500-1)	CDE	3360-1½	509	(500-1½)
	16R		AB	3400-1	528	(600-1)	CDE	3400-1½	528	(600-1½)
	10		AB	3480/24	611	(700-½)	CDE	3480-1½	611	(700-1½)
	22		AB	3540-1	685	(700-1)	CDE	3540-2	685	(700-2)
	CIRCLING ALL RWY		AB	3540-1	668	(700-1)	C	3540-1¾	668	(700-1¾)
			D	3540-2	668	(700-2)	E	3580-2½	708	(800-2½)

For inoperative ALS, increase ASR-10 Cat C/D/E visibility to 1¼ mile.

For inoperative ALS, increase ALS-28 Cat D/E visibility to 1¼ mile.

Night Landing: Rwy 16L NA.


When control tower closed, ASR NA.

### SAN ANGELO, TX

Amdt 1A, 29JUL10 (10210) (FAA)

ELEV 1917

### SAN ANGELO RGNL/MATHIS FIELD (SJT)

RADAR-1 125.35 354.1 

	RWY	GP/TCH/RPI	CAT	HAT/ HATh/			CAT	HAT/ HATh/		
				DA/ MDA-VIS	HAA	CEIL-VIS		DA/ MDA-VIS	HAA	CEIL-VIS
ASR	36		AB	2460-1	543	(600-1)	C	2460-1½	543	(600-1½)
			D	2460-1¾	543	(600-1¾)	E	2460-2	543	(600-2)
	18		AB	2480-1	573	(600-1)	C	2480-1½	573	(600-1½)
			D	2480-1¾	573	(600-1¾)	E	2480-2	573	(600-2)
CIRCLING ALL RWY			AB	2480-1	563	(600-1)	C	2480-1½	563	(600-1½)
			D	2480-2	563	(600-2)	E	2640-2½	721	(800-2½)

Category E circling NA west of runway 18-36.

SC-3

## RADAR INSTRUMENT APPROACH MINIMUMS

# RADAR MINS

17173

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

# RADAR MINS

17173

## RADAR INSTRUMENT APPROACH MINIMUMS

### WACO, TX

Amdt 1A, 11FEB10 (10042) (FAA)

ELEV 592

### MC GREGOR EXECUTIVE (PWG)

RADAR-1 127.65 352.0 **▽**

	<u>RWY</u>	<u>GP/TCH/RPI</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATH/</u> <u>HAA</u>	<u>CEIL-VIS</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATH/</u> <u>HAA</u>	<u>CEIL-VIS</u>
ASR	17		AB	1020-1	430	(500-1)	C	1020-1¼	430	(500-1¼)
			D	NA						
CIRCLING ALL RWY			A	1040-1	448	(500-1)	B	1060-1	468	(500-1)
			C	1060-1½	468	(500-1½)	D	NA		

### WACO, TX

Amdt 4, 11FEB10 (10042) (FAA)

ELEV 470

### TSTC WACO (CNW)

RADAR-1 127.65 227.125 **△**

	<u>RWY</u>	<u>GP/TCH/RPI</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATH/</u> <u>HAA</u>	<u>CEIL-VIS</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATH/</u> <u>HAA</u>	<u>CEIL-VIS</u>
ASR	17L		AB	1080-½	611	(700-½)	C	1080-1¼	611	(700-1¼)
			D	1080-1½	611	(700-1½)				
CIRCLING ALL RWY			AB	1080-1	610	(700-1)	C	1080-1¾	610	(700-1¾)
			D	1080-2	610	(700-2)				

When Waco Regional approach control closed, ASR not authorized.

### WACO, TX

Amdt 4, 23SEP10 (14317) (FAA)

ELEV 516

### WACO RGNL (ACT)

RADAR-1 127.65 227.125 **▽**

	<u>RWY</u>	<u>GP/TCH/RPI</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATH/</u> <u>HAA</u>	<u>CEIL-VIS</u>	<u>CAT</u>	<u>DA/</u> <u>MDA-VIS</u>	<u>HAT/</u> <u>HATH/</u> <u>HAA</u>	<u>CEIL-VIS</u>
ASR	19		ABC	880/24	376	(400-½)	D	880/50	376	(400-1)
	1		ABC	860-1	351	(400-1)	D	860-1¼	351	(400-1¼)
	14		AB	920-1	407	(500-1)	CD	920-1¼	407	(500-1¼)
	32		AB	1020-1	504	(600-1)	CD	1020-1½	504	(600-1½)
CIRCLING ALL RWY			AB	1020-1	504	(600-1)	C	1020-1½	504	(600-1½)
			D	1080-2	564	(600-2)				

For inoperative MALSRL increase S-19 CAT D visibility to RVR 6000.

When control tower closed, ASR NA.

SC-3

## RADAR INSTRUMENT APPROACH MINIMUMS

# RADAR MINS

17173

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

INSTRUMENT APPROACH PROCEDURE CHARTS

17173

## IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

### Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are textually described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned an ODP, SID, or radar vector as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the airport, a fix, or a NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Airport (VCOA). To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when requesting their IFR clearance.

At some locations where an ODP has been established, a diverse vector area (DVA) may be created to allow radar vectors to be used in lieu of an ODP. DVA information will state that headings will be as assigned by ATC and climb gradients, when applicable, will be published immediately following the specified departure procedure.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) For aircraft, other than helicopters, having two engines or less – one statute mile visibility. (2) For aircraft having more than two engines – one-half statute mile visibility. (3) For helicopters – one-half statute mile visibility. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refer to appropriate service directives.

NAME TAKEOFF MINIMUMS

### ALICE, TX

#### ALICE INTL (ALI)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES  
ORIG 04106 (FAA)

NOTE: **Rwy 17**, multiple poles beginning 601' from DER, 413' right to 340' left of centerline, up to 36' AGL/204' MSL. Multiple trees beginning 205' from DER, 348' left to 317' right of centerline, up to 26' AGL/194' MSL. **Rwy 26**, building 797' from DER, 366' left of centerline, 30' AGL/208' MSL. Tree 812' from DER, 301' left of centerline, 27' AGL/205' MSL. Rod on OL DME, 715' from DER, 258' right of centerline, 21' AGL/ 199' MSL. Steel post 83' from DER, 344' right of centerline, 4' AGL/181' MSL. **Rwy 31**, rod on OL DME 388' from DER, 256' left of centerline, 21' AGL/199' MSL. Tree 439' from DER, 608' left of centerline, 16' AGL/194' MSL. Steel post 2' from DER, 251' right of centerline, 164' AGL/181' MSL. Tree 1067' from DER, 359' right of centerline, 28' AGL/206' MSL. **Rwy 35**, windmill 1461' from DER, 164' left of centerline, 140' AGL/214' MSL. Bush 330' from DER, 287' right of runway, 14' AGL/185' MSL.

NAME TAKEOFF MINIMUMS

### ALPINE, TX

#### ALPINE-CASPARIS MUNI (E38)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES  
AMDT 5 12208 (FAA)

TAKEOFF MINIMUMS: **Rwy 23**, NA - obstacles. **Rwy 19**, std. w/ min. climb of 432' per NM to 6900 or 1800-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 1**, climb heading 029° to 5300 then climbing left turn direct BWR NDB, continue climb in BWR NDB holding pattern (hold N, LT, 194° inbound) to 8600 before proceeding on course. (ADF required) **Rwy 5**, climbing left turn direct BWR NDB, continue climb in BWR NDB holding pattern (hold N, LT, 194° inbound) to 8600 before proceeding on course. (ADF required) **Rwy 19**, climbing left turn direct BWR NDB, continue climb in BWR NDB holding pattern (hold N, LT, 194° inbound) to 8600 before proceeding on course. For climb in visual conditions, cross Alpine-Casparis Muni airport northeast bound at or above 6200 MSL then direct BWR NDB, continue climb in BWR NDB holding pattern (hold N, LT, 194° inbound) to 8600 before proceeding on course. Do not exceed 200 KIAS until established direct BWR NDB. When executing VCOA, notify ATC prior to departure. (ADF required)

17173

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



17173

## ALPINE, TX (CON'T)

### ALPINE-CASPARIS MUNI (E38) (CON'T)

NOTE: **Rwy 1**, Poles, sign and tree beginning 13' from DER, 228' right of centerline, up to 33' AGL/4472' MSL. Vehicles on road and fence beginning 10' from DER, 274' left of centerline, up to 15' AGL/4463' MSL. **Rwy 5**, vehicles on road, poles, tree, sign and antenna beginning 18' from DER, 165' right of centerline, up to 38' AGL/4477' MSL. Poles, trees and sign beginning 13' from DER, 240' left of centerline, up to 37' AGL/4476' MSL. **Rwy 19**, Vehicles on road, poles and terrain beginning 32' from DER, 60' right of centerline, up to 43' AGL/4562' MSL. Vehicles on road, poles, trees, sign and windmill beginning 2' from DER, 153' left of centerline, up to 37' AGL/4556' MSL.

## AUSTIN, TX

### AUSTIN-BERGSTROM INTL (AUS)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 06327 (FAA)

DEPARTURE PROCEDURE: **Rwys 35L, 35R**, climb via heading 353° to 1800 before turning left on course.

NOTE: **Rwy 17L**, trees beginning 498' from DER, 576' left of centerline, up to 80' AGL/517' MSL. Tree 617' from DER, 585' right of centerline, 55' AGL/498' MSL. **Rwy 17R**, trees 1007' from DER, 739' right of centerline, up to 61' AGL/523' MSL. **Rwy 35R**, tree 817' from DER, 664' right of centerline, 55' AGL/528' MSL.

### AUSTIN EXECUTIVE (EDC)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 10210 (FAA)

TAKEOFF MINIMUMS: **Rwys 16, 34**, NA-Environmental. NOTE: **Rwy 31**, trees beginning 901' from DER, 258' left of centerline, up to 50' AGL/669' MSL. Utility poles beginning 929' from DER, 370' left of centerline, up to 135' AGL/749' MSL. Utility poles beginning 2326' from DER, 878' right of centerline, up to 105' AGL/704' MSL.

### SAN MARCOS RGNL (HYI)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2A 16175 (FAA)

DEPARTURE PROCEDURE: **Rwy 31**, climb heading 306° to 1500 before turning right. **Rwy 35**, climb heading 006° to 2500 before turning left.

NOTE: **Rwy 8**, sign 1' from DER, 250' left of centerline, 3' AGL/583' MSL. Tree 942' from DER, 259' left of centerline, 34' AGL/612' MSL. **Rwy 13**, trees beginning 2505' from DER, 90' right of centerline, up to 80' AGL/646' MSL. **Rwy 17**, bush 27' from DER, 74' left of centerline, 2' AGL/576' MSL. **Rwy 26**, runway end identifier light 8' from DER, 91' right of centerline, 4' AGL/589' MSL. Trees beginning 1072' from DER, 394' right of centerline, up to 50' AGL/638' MSL. Pole 1216' from DER, 552' right of centerline, 43' AGL/638' MSL. **Rwy 31**, trees beginning 911' from DER, left and right of centerline, up to 34' AGL/631' MSL. Pole 1056' from DER, 630' right of centerline, 33' AGL/621' MSL. **Rwy 35**, sign 24' from DER, 199' left of centerline, 3' AGL/597' MSL. Vehicles on road beginning 410' from DER, 719' right of centerline, up to 15' AGL/614' MSL. Trees beginning 3226' from DER, left and right of centerline, up to 49' AGL/738' MSL. Telephone line 4571' from DER, 107' right of centerline, 47' AGL/719' MSL.

17173



# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



## BALLINGER, TX

### BRUCE FIELD (E30)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 11265 (FAA)

NOTE: **Rwy 17**, trees beginning 1902' from DER, 661' right of centerline, up to 100' AGL/1859' MSL. **Rwy 35**, trees, building, and road beginning 29' from DER, 210' left of centerline, up to 100' AGL/1839' MSL. Tree and poles beginning 887' from DER, 429' right of centerline, up to 37' AGL/1772' MSL.

## BEEVILLE, TX

### BEEVILLE MUNI (BEA)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG-A 16147 (FAA)

TAKEOFF MINIMUMS: **Rwys 18, 36**, NA-environmental. **Rwy 30**, 300-2 or std. w/ min. climb of 239' per NM to 700.

NOTE: **Rwy 12**, pole, and trees beginning 64' from DER, 290' right of centerline, up to 29' AGL/272' MSL. Tree, road, and pole beginning 153' from DER, 9' right of centerline, up to 33' AGL/275' MSL. Trees beginning 756' from DER, 50' left of centerline, up to 279' MSL. Trees and pole beginning 933' from DER, 30' right of centerline, up to 282' MSL. **Rwy 30**, pole, tree, and building beginning 117' from DER, 290' left of centerline, up to 32' AGL/301' MSL. Tree 1054' from DER, 574' left of centerline, 307' MSL. Tree 1835' from DER, 452' right of centerline, 319' MSL. Pole and trees beginning 1875' from DER, 287' left of centerline, up to 323' MSL. Tree beginning 1907' from DER, 246' right of centerline, up to 53' AGL/339' MSL. Trees and poles beginning 1934' from DER, 100' left of centerline, up to 336' MSL. Tower 1.4 NM from DER, 2568' right of centerline, 230' AGL/542' MSL.

## BIG LAKE, TX

### REAGAN COUNTY (E41)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 06327 (FAA)

TAKEOFF MINIMUMS: **Rwys 9,27**, NA-environmental. NOTE: **Rwy 16**, road 384' from DER, 603' right of centerline, 17' AGL/2716' MSL.

## BIGGS AAF (KBIF)

### FORT BLISS, TX

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

07130

**Rwy 21**: Left turn direct to ELP VORTAC, continue climb via R-130 to airway MEA or as directed by ATC. **Rwy 3**: Right turn direct to ELP VORTAC, continue climb via R-130 to airway MEA or as directed by ATC.

22 JUN 2017 to 20 JUL 2017

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

17173

**BRADY, TX**

CURTIS FIELD (BBD)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 08045 (FAA)

TAKEOFF MINIMUMS: **Rwys 8, 26**, NA-Environmental.

NOTES: **Rwy 17**, Light poles, trees, fence, terrain, and vehicle on road beginning 50' from DER, 362' left of centerline, up to 30' AGL/1827' MSL. Trees beginning 17' from DER, 216' right of centerline, up to 30' AGL/1818' MSL.

**BROWNSVILLE, TX**BROWNSVILLE/SOUTH PADRE ISLAND  
INTL (BRO)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 16287 (FAA)

NOTE: **Rwy 13**, trees and bushes beginning 32' from DER, 399' left of centerline, up to 30' AGL/50' MSL. Trees, bushes, pole and building beginning 751' from DER, 191' right of centerline, up to 44' AGL/64' MSL. **Rwy 18**, trees and pole beginning 56' from DER, 61' left of centerline, up to 53' AGL/78' MSL. Trees and poles beginning 1011' from DER, 96' right of centerline, up to 44' AGL/69' MSL. **Rwy 31**, airplanes on taxiway beginning 371' from DER, 563' right of centerline, up to 45' AGL/64' MSL. Trees beginning 1141' from DER, 567' right of centerline, up to 37' AGL/52' MSL. **Rwy 36**, pole and trees beginning 695' from DER, 140' right of centerline, up to 56' AGL/71' MSL. Trees beginning 719' from DER, 84' left of centerline, up to 63' AGL/78' MSL.

**BROWNWOOD, TX**

BROWNWOOD RGNL (BWD)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 11293 (FAA)

NOTE: **Rwy 13**, trees beginning 1523' from DER, 844' right of centerline, up to 47' AGL/1412' MSL. **Rwy 17**, trees beginning 797' from DER, 649' left of centerline, up to 33' AGL/1398' MSL. Trees beginning 691' from DER, 640' right of centerline, up to 31' AGL/1393' MSL. Building 737' from DER, 253' right of centerline, 29' AGL/1391' MSL. **Rwy 35**, trees beginning 77' from DER, 272' left of centerline, up to 49' AGL/1411' MSL. Trees beginning 771' from DER, 282' right of centerline, up to 46' AGL/1418' MSL.

**BURNET, TX**BURNET MUNI KATE CRADDOCK FIELD  
(BMQ)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 09351 (FAA)

NOTE: **Rwy 1**, trees and cars beginning 362' from DER, 488' right of centerline, up to 100' AGL/1379' MSL. Trees and cars beginning 274' from DER, 86' left of centerline, up to 100' AGL/1419' MSL. **Rwy 19**, trees beginning 32' from DER, 103' right of centerline, up to 100' AGL/1379' MSL. Trees beginning 188' from DER, 332' left of centerline, up to 100' AGL/1369' MSL.

**CARRIZO SPRINGS, TX**

DIMMIT COUNTY (CZT)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 87267 (FAA)

DEPARTURE PROCEDURE: **Rwy 31**, climb runway heading to 1200 prior to left turn to avoid 1114' antenna west of airport.

**CASTROVILLE, TX**

CASTROVILLE MUNI (CVB)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 15288 (FAA)

NOTE: **Rwy 16**, trees beginning 103' from DER, 361' left of centerline, up to 50' AGL/787' MSL. Trees beginning 221' from DER, 347' right of centerline, up to 50' AGL/794' MSL. **Rwy 34**, agriculture equipment beginning 1' from DER, 55' left of centerline, up to 15' AGL/790' MSL. Road beginning 107' from DER, left and right of centerline, 15' AGL/789' MSL. Trees beginning 1928' from DER, 5' right of centerline, up to 50' AGL/838' MSL. Trees beginning 2322' from DER, 685' left of centerline, up to 50' AGL/851' MSL. Pole 1483' from DER, 834' right of centerline, 37' AGL/816' MSL. Pole 2255' from DER, 247' right of centerline, 52' AGL/831' MSL. Antenna on silo 2239' from DER, 911' left of centerline, 88' AGL/870' MSL.

**COLEMAN, TX**

COLEMAN MUNI (COM)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 11069 (FAA)

NOTE: **Rwy 15**, trees beginning 792' from DER, 67' right of centerline, up to 100' AGL/1774' MSL. **Rwy 33**, cranes beginning 1010' from DER, 28' left of centerline, up to 65' AGL/1774' MSL. Cranes beginning 2285' from DER, 13' right of centerline, up to 65' AGL/1774' MSL.

**COMANCHE, TX**

COMANCHE COUNTY-CITY (MKN)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 06047 (FAA)

TAKEOFF MINIMUMS: **Rwys 13, 31**, NA-Environmental. NOTE: **Rwy 17**, road at DER, 134' right of centerline, 15' AGL/1394' MSL. Road 784' from DER, 324' right of centerline, 15' AGL/1404' MSL. **Rwy 35**, trees beginning 464' from DER, across centerline, up to 50' AGL/1429' MSL.

17173

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

17173

**CORPUS CHRISTI, TX**

**CORPUS CHRISTI INTL (CRP)**

**TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 3 16147 (FAA)

TAKEOFF MINIMUMS: **Rwy 36**, 400-2¾ or std. w/ min. climb of 235' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 31**, Climb heading 312° to 600 before turning left.

NOTE: **Rwy 13**, vehicles on road and wind cone beginning 2' from DER, 260' right of centerline, up to 53' MSL. Vehicles on road 69' from DER, 337' right of centerline, 54' MSL. **Rwy 18**, vehicles on road beginning 301' from DER, 103' left of centerline, up to 53' MSL. **Rwy 31**, vehicles on road 22' from DER, 65' right of centerline, 58' MSL. Poles beginning 765' from DER, 616' right of centerline, up to 36' AGL/75' MSL. **Rwy 36**, vehicles on road beginning 261' from DER, 444' right of centerline, up to 52' MSL. Vehicles on road 490' from DER, 604' left of centerline, 54' MSL. Light poles beginning 1217' from DER, 648' right of centerline, up to 31' AGL/74' MSL. Light poles beginning 1241' from DER, 665' left of centerline, up to 31' AGL/74' MSL. Light pole 1294' from DER, 799' right of centerline, 31' AGL/75' MSL. Light pole 1330' from DER, 850' left of centerline, 32' AGL/75' MSL. Refinery 1.9 NM from DER, 180' right of centerline, 318' AGL/344' MSL. Tower 2.1 NM from DER, 3773' left of centerline, 401' AGL/423' MSL.

**CORPUS CHRISTI NAS (TRUAX FLD)**

**(KNGP)**

**CORPUS CHRISTI, TX**

**TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG 15232

TAKEOFF OBSTACLES: **Rwy 13L**, pylon 3366' from DER, 452' left of centerline, 91' AGL/102' MSL. Pylon 4193' from DER, 36' left of centerline, 79' AGL/104' MSL. Pylon 3997' from DER, 688' left of centerline, 60' AGL/87' MSL. Terrain 570' from DER, 653' right of centerline, 33' MSL. Terrain 551' from DER, 644' right of centerline, 33' MSL. Terrain 413' from DER, 547' left of centerline, 33' MSL. Terrain 47' from DER, 500' left of centerline, 35' MSL. Terrain 46' from DER, 512' left of centerline, 35' MSL. Pylon 4518' from DER, 1117' right of centerline, 79' AGL/107' MSL. Pylon 4675' from DER, 1696' right of centerline, 79' AGL/103' MSL. Pylon 4346' from DER, 542' right of centerline, 79' AGL/101' MSL.

**Rwy 13R**, pylon 4743' from DER, 786' left of centerline, 79' AGL/104' MSL. Terrain 443' from DER, 550' right of centerline, 33' MSL. Terrain 380' from DER, 602' right of centerline, 33' MSL. Terrain 247' from DER, 550' right of centerline, 33' MSL. Terrain 190' from DER, 551' right of centerline, 33' MSL. Terrain 427' from DER, 614' left of centerline, 34' MSL. Terrain 384' from DER, 600' left of centerline, 34' MSL. Pylon 5067' from DER, 368' right of centerline, 79' AGL/107' MSL. Pylon 5224' from DER, 946' right of centerline, 79' AGL/103' MSL.

**Rwy 17**, pylon 4925' from DER, 381' left of centerline, 124' AGL/142' MSL. Terrain 472' from DER, 584' left of centerline, 30' MSL. Terrain 63' from DER, 517' right of centerline, 32' MSL. Terrain 11' from DER, 500' right of centerline, 33' MSL. **Rwy 31L**, terrain 47' from DER, 512' left of centerline, 29' MSL. Terrain 50' from DER, 500' left of centerline, 30' MSL. Terrain 173' from DER, 546' left of centerline, 30' MSL. Terrain 181' from DER, 500' left of centerline, 31' MSL. Terrain 684' from DER, 652' right of centerline, 30' MSL. **Rwy 31R**, terrain 31' from DER, 500' right of centerline, 33' MSL. Terrain 63' from DER, 517' right of centerline, 33' MSL. Terrain 294' from DER, 500' right of centerline, 33' MSL. Terrain 380' from DER, 602' right of centerline, 33' MSL. **Rwy 35**, terrain 46' from DER, 512' left of centerline, 36' MSL. Terrain 50' from DER, 500' left of centerline, 36' MSL. Terrain 300' from DER, 580' left of centerline, 36' MSL. Terrain 313' from DER, 500' left of centerline, 36' MSL.

**COTULLA, TX**

**COTULLA-LA SALLE COUNTY (COT)**

**TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 1 14261 (FAA)

NOTE: **Rwy 13**, trees beginning 4' from DER, left and right of centerline, up to 20' AGL/465' MSL. Vehicles on unlit roadway, beginning 55' from DER, 507' left of centerline, up to 15' AGL/482' MSL. Trees beginning 142' from DER, left and right of centerline, up to 20' AGL/482' MSL. Trees beginning 622' from DER, left and right of centerline, up to 24' AGL/480' MSL. Pole 1002' from DER, 548' left of centerline, 33' AGL/488' MSL. **Rwy 31**, fence .08' from DER, 310' right of centerline, 3' AGL/476' MSL. Trees beginning 19' from DER, left and right of centerline, up to 13' AGL/485' MSL. Trees beginning 178' from DER, 311' right of centerline, up to 16' AGL/490' MSL. Trees beginning 380' from DER, 386' right of centerline, up to 21' AGL/493' MSL.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

17173

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

**DEL RIO, TX**

DEL RIO INTL (DRT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 99252 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, climb to 1500 prior to left turn.

**DEVINE, TX**

DEVINE MUNI (23R)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 35**, 300-1 or std. w/min. climb of 265' per NM to 900.

NOTE: **Rwy 17**, trees beginning 281' from DER, 383' left of centerline, up to 50' AGL/759' MSL. Trees beginning 1145' from DER, 233' left of centerline, up to 50' AGL/779' MSL. **Rwy 35**, trees beginning 4761' from DER, 128' right of centerline, up to 50' AGL/839' MSL.

**EAGLE PASS, TX**

MAVERICK COUNTY MEMORIAL INTL (5T9)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 08269 (FAA)

NOTE: **Rwy 13**, vehicle on road 171' from DER, 393' right of centerline, 15' AGL/894' MSL.

**EDINBURG, TX**

SOUTH TEXAS INTL AT EDINBURG (EBG)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 06271 (FAA)

TAKEOFF MINIMUMS: CAUTION: Unmarked balloon and cable to 15000' MSL in R-6317. **Rwy 14**, 276/37.9 NM, **Rwy 32**, 276/38.5 NM.

NOTE: **Rwy 14**, tree 1109' from DER, 525' right of centerline, 19' AGL/108' MSL. Terrain 20' from DER, 312' right of centerline, 0' AGL/74' MSL. **Rwy 32**, multiple poles beginning 831' from DER, 53' right of centerline, up to 32' AGL/111' MSL. Road 640' from DER, 671' right of centerline, 17' AGL/96' MSL.

**EL PASO, TX**

EL PASO INTL (ELP)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 8 15232 (FAA)

TAKEOFF MINIMUMS: **Rwys 8L, 26R**, NA -

Environmental. **Rwy 26L**, std. w/min. climb of 490' per NM to 6300.

DEPARTURE PROCEDURE: **Rwy 4, 8R**, climbing right turn heading 120° and ELP R-150 to 9000, then proceed on course. **Rwy 22, 26L**, climbing left turn heading 120° and ELP R-150 to 9000, then proceed on course.

NOTE: **Rwy 4**, light poles beginning 1053' from DER, 746' left of centerline, 39' AGL/3986' MSL. **Rwy 26L**, light poles beginning 1248' from DER, 614' left of centerline, up to 60' AGL/3983' MSL. Windsock 113' from DER, 295' right of centerline, 20' AGL/3943' MSL. **Rwy 22**, utility pedestal 30' from DER, 205' right of centerline, 4' AGL/3918' MSL.

**FALFURRIAS, TX**

BROOKS COUNTY (BKS)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 09127 (FAA)

TAKEOFF MINIMUMS: **Rwy 32**, 400-2¼ or std. w/ min. climb of 249' per NM to 600. **Rwy 35**, std. w/ min. climb of 250' per NM to 800, or 500-3 w/ min. climb of 242' per NM to 800, or 900-2½ for climb in visual conditions. DEPARTURE PROCEDURE: **Rwy 35**, for climb in visual conditions: cross Brooks County Airport at or above 900 MSL before proceeding on course.

NOTE: **Rwy 14**, vehicle on road, 29' from DER, 499' left of centerline, 15' AGL/129' MSL. Trees beginning 149' from DER, 523' left of centerline, up to 40' AGL/154' MSL. Trees beginning at DER, 415' right of centerline, up to 40' AGL/149' MSL. **Rwy 17**, vehicle on road, at DER, 364' left of centerline, 15' AGL/119' MSL. Trees beginning 15' from DER, 331' right of centerline, up to 40' AGL/149' MSL. Trees beginning 165' from DER, 126' left of centerline, up to 17' AGL/129' MSL. **Rwy 32**, road and trees beginning 587' from DER, 35' right of centerline, up to 40' AGL/149' MSL. Tower 1.9 NM from DER, 987' left of centerline, 298' AGL/418' MSL. **Rwy 35**, vehicle on road, at DER, 360' right of centerline, 15' AGL/118' MSL. Tree 1010' from DER, 278' right of centerline, 29' AGL/138' MSL. Tower 2.6 NM from DER, 426' right of centerline, 414' AGL/539' MSL.

**FORT HOOD, TX**

ROBERT GRAY AAF (GRK)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

NOTE: **Rwy 33**, pole 974' from DER, 746' left of centerline, 35' AGL/1050' MSL. Pole 1121' from DER, 746' left of centerline, 33' AGL/1048' MSL.

**FORT STOCKTON, TX**

FORT STOCKTON-PECOS COUNTY (FST)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 09239 (FAA)

TAKEOFF MINIMUMS: **Rwys 7, 11, 16, 25, 29, 34**, NA-Environmental. **Rwy 21**, 300-1 or std. w/ min. climb of 280' per NM to 3600.

DEPARTURE PROCEDURE: **Rwy 21**, climb heading 208° to 3600 before turning left.

NOTE: **Rwy 12**, tree 899' from DER, 310' right of centerline, 39' AGL/3049' MSL. **Rwy 21**, brush beginning 110' from DER, 222' right of centerline, up to 20' AGL/3159' MSL. Terrain beginning 124' from DER, 77' right of centerline, up to 3173' MSL. Terrain beginning 56' from DER, 132' left of centerline, up to 3111' MSL. Bush 236' from DER, 30' left of centerline, 6' AGL/3013' MSL. Vehicle on road, 2017' from DER, 973' left of centerline, 17' AGL/3066' MSL. **Rwy 30**, trees beginning 64' from DER, 354' left of centerline, up to 6' AGL/2995' MSL.

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

17173

**FREDERICKSBURG, TX**

GILLESPIE COUNTY (T82)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 05020 (FAA)

DEPARTURE PROCEDURE: **Rwy 14**, climb via heading  
139° to 2400 before proceeding on course. **Rwy 32**,  
climb via heading 319° to 2400 before proceeding on  
course.

**GEORGE WEST, TX**

LIVE OAK COUNTY (8T6)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG-A 16175 (FAA)

TAKEOFF MINIMUMS: **Rwy 31**, 700-3 or std. with a  
min. climb of 230' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 13**, climb runway  
heading to 600 before turning right.

NOTE: **Rwy 13**, Trees and poles beginning 20' from  
DER, left and right of centerline, up to 37' AGL/157'  
MSL. Vehicles on road starting 200' from DER, 431'  
left of centerline, up to 15' AGL/138' MSL. Trees 815'  
from DER, 613' right of centerline, 48' AGL/168' MSL.  
**Rwy 31**, Building, trees and poles beginning 57'  
from DER, 484' right of centerline, up to 40' AGL/163'  
MSL. Vehicles on road starting 85' from DER, left and  
right of centerline, up to 15' AGL/143' MSL. Trees and  
poles beginning 365' from DER, 401' left of centerline,  
50' AGL/180' MSL.

**GEORGETOWN, TX**

GEORGETOWN MUNI (GTU)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 15064 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, 200-1¼ or std. w/min.  
climb of 244' per NM to 1000.

NOTE: **Rwy 11**, trees beginning 11' from DER, 136' right  
of centerline, up to 39' AGL/796' MSL. Trees beginning  
489' from DER, 226' left of centerline, up to 42' AGL/791'  
MSL. Buildings and poles beginning 183' from DER, 424'  
left of centerline, 30' AGL/789' MSL. Transmission  
towers, telephone lines with catenary balls 2019' from  
DER, crossing centerline, up to 97' AGL/837' MSL. **Rwy  
18**, trees beginning 31' from DER, 38' left of centerline,  
up to 33' AGL/792' MSL. Trees beginning 176' from  
DER, 19' right of centerline, up to 43' AGL/792' MSL.  
Antenna 6012' from DER, 1158' right of centerline, 163'  
AGL/932' MSL. Transmission tower 3137' from DER,  
1036' left of centerline, 90' AGL/835' MSL. Poles  
beginning 1194' from DER, crossing centerline, up to 48'  
AGL/785' MSL. Terrain 73' from DER, 246' left of  
centerline, 751' MSL. REIL 36' from DER, 124' left of  
centerline, 1' AGL/750' MSL. **Rwy 29**, trees beginning  
204' from DER, 78' left of centerline, up to 37' AGL/789'  
MSL. Trees beginning 103' from DER, 22' right of  
centerline, up to 35' AGL/844' MSL. Poles beginning 765'  
from DER, crossing centerline, up to 45' AGL/844' MSL.  
Bushes beginning 9' from DER, 117' left of centerline, up  
to 3' AGL/792' MSL. Bush 216' from DER, 350' right of  
centerline, 3' AGL/796' MSL. **Rwy 36**, trees beginning  
144' from DER, 301' left of centerline, up to 38' AGL/837'  
MSL. Trees beginning 284' from DER, 423' right of  
centerline, up to 45' AGL/823' MSL. Bush 73' from DER,  
67' left of centerline, 4' AGL/791' MSL. Bush 68' from  
DER, 135' right of centerline, 4' AGL/788' MSL. Building  
71' from DER, 513' right of centerline, 18' AGL/789' MSL.  
Antenna 104' from DER, 492' right of centerline, 21'  
AGL/810' MSL. Pole 269' from DER, 565' left of  
centerline, 35' AGL/828' MSL. Poles beginning 929' from  
DER, 440' left of centerline, up to 47' AGL/820' MSL.

**HAMILTON, TX**

HAMILTON MUNI (MNZ)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 09351 (FAA)

NOTE: **Rwy 18**, tree 689' from DER, 211' left of  
centerline, 40' AGL/1346' MSL. Vehicle on North-South  
road 849' from DER, on extended centerline, 15'  
AGL/1321' MSL. **Rwy 36**, trees beginning 621' from  
DER, 186' left of centerline, 40' AGL/1359' MSL. Trees  
879' from DER, 87' right of centerline, 40' AGL/1359'  
MSL.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

17173

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**



**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

17173

**HARLINGEN, TX****VALLEY INTL (HRL)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 03303 (FAA)

NOTE: **Rwy 13**, pole 1031' from DER, 465' left of centerline, 38' AGL/68' MSL. Pole 1055' from DER, 475' left of centerline, 38' AGL/68' MSL. **Rwy 17R**, fence 24' from DER, 499' right of centerline, 8' AGL/41' MSL. **Rwy 17L**, road (non-interstate) 416' from DER, on runway centerline, 20' AGL/51' MSL. Road (non-interstate) 410' from DER, 520' left of centerline, 20' AGL/50' MSL. **Rwy 31**, tree 983' from DER, 462' left of centerline, 42' AGL/69' MSL.

**HEBBRONVILLE, TX****JIM HOGG COUNTY (HBV)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 10210 (FAA)

NOTE: **Rwy 13**, trees beginning 7' from DER, 59' left of centerline, up to 25' AGL/694' MSL. **Rwy 31**, trees beginning 112' from DER, 274' right of centerline to 438' left of centerline, up to 12' AGL/681' MSL. Pole 801' from DER, 374' right of centerline, up to 26' AGL/685' MSL. NDB 275' from DER, 495' left of centerline, up to 33' AGL/692' MSL. Vehicle on road 399' from DER, left and right of centerline, up to 15' AGL/674' MSL.

**HONDO, TX****SOUTH TEXAS RGNL AT HONDO (HDO)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG-A 11209 (FAA)

TAKEOFF MINIMUMS: **Rwys 4, 22**, NA-Environmental. NOTE: **Rwy 8**, trees 407' from DER, 243' left of centerline, 30' AGL/959' MSL. **Rwy 17L**, vehicles on road 488' from DER, 131' right of centerline, 15' AGL/925' MSL. **Rwy 17R**, sand storage domes beginning 3653' from DER, 838' right of centerline, up to 115' AGL/1023' MSL. **Rwy 35R**, vehicles on road 161' from DER, 172' left of centerline, 15' AGL/943' MSL. Multiple trees beginning 636' from DER, 354' right of centerline, up to 26' AGL/955' MSL. Vehicles on road beginning 490' from DER, 122' right of centerline, 15' AGL/943' MSL. **Rwy 26**, trees 1022' from DER, 241' right of centerline, 30' AGL/959' MSL. **Rwy 13**, trees 726' from DER, 250' left of centerline, 30' AGL/939' MSL.

**HOOD AAF (KHLR)****FORT HOOD (KILLEEN), TX**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2, 09351

TAKEOFF MINIMUMS: **Rwy 16, 34** Standard\*  
\* For Copter use only.

**JUNCTION, TX****KIMBLE COUNTY (JCT)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 11125 (FAA)

TAKEOFF MINIMUMS: **Rwys 8, 26, NA** - Environmental. **Rwy17**, std. w/min. climb of 340' per NM to 2300 or 1300-3 for climb in visual conditions. **Rwy 35**, std. w/min. climb of 565' per NM to 2200 or 400-3 with minimum climb of 230' per NM to 2500, or 1300-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 17**, climb heading 172° to 2800 before proceeding on course, for climb in visual conditions cross Kimble County Airport at or above 2900 before proceeding on course. **Rwy 35**, for climb in visual conditions cross Kimble County Airport at or above 2900 before proceeding on course.

NOTE: **Rwy 17**, trees beginning abeam DER, 297' right of centerline, up to 50' AGL/1749' MSL. Power lines beginning 229' from DER, 370' right of centerline, up to 75' AGL/1744' MSL. Vehicles on road beginning 390' from DER, left and right of centerline, up to 17' AGL/1716' MSL. Trees beginning 1548' from DER, left and right of centerline, up to 50' AGL/2049' MSL. Radio towers beginning 4568' from DER, 736' left of centerline, up to 169' AGL/1854' MSL. **Rwy 35**, power lines beginning abeam DER, 545' left of centerline, up to 75' AGL/1854' MSL. Power lines abeam DER, 561' right of centerline, up to 75' AGL/1854' MSL. Vehicles on road beginning 1121' from DER, left and right of centerline, up to 15' AGL/1794' MSL. Trees beginning 1254' from DER, left and right of centerline, up to 50' AGL/2129' MSL.

**KELLY FLD (KSKF)****SAN ANTONIO, TX**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 17145

TAKE-OFF OBSTACLES: **Rwy 34**, trees 50' AGL/743' MSL, 1763' from DER, 919' left of cntrln.

**KENEDY, TX****KARNES COUNTY (2R9)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 11293 (FAA)

TAKEOFF MINIMUMS: **Rwy 34**, 400-2 or std. w/min. climb of 359' per NM to 900.

DEPARTURE PROCEDURE: **Rwy 34**, climb heading 344° to 900 before turning left.

NOTE: **Rwy 16**, trees beginning 85' from DER, 245' left of centerline, up to 35' AGL/304' MSL. Trees beginning 98' from DER, 206' right of centerline, up to 35' AGL/304' MSL. **Rwy 34**, trees beginning 321' from DER, 245' right of centerline, up to 35' AGL/318' MSL. Tower 1.4 NM from DER, 2809' left of centerline, 238' AGL/628' MSL.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

17173

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

17173

## KERRVILLE, TX

KERRVILLE MUNI /LOUIS SCHREINER  
FIELD (ERV)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 11013 (FAA)

TAKEOFF MINIMUMS: **Rwy 3**, std. w/ min. climb of 377' per NM to 2800 or 1000-3 for climb in visual conditions. **Rwy 30**, std. w/ min. climb of 216' per NM to 2500 or 1000-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 3, 30**, for climb in visual conditions: cross Kerrville Muni/Louis Schreiner Field at or above 2600' MSL before proceeding on course.

NOTE: **Rwy 3**, trees and pole beginning 203' from DER, 46' left of centerline, up to 31' AGL/1692' MSL. Trees, poles, T-L towers beginning 136' from DER, 11' right of centerline, up to 30' AGL/1927' MSL. **Rwy 12**, terrain 62' from DER, 79' right of centerline, 1592' MSL. Terrain 66' from DER, 322' left of centerline, 1602' MSL. Tree 94' from DER, 321' right of centerline, 24' AGL/1597' MSL. Vehicle on road 211' from DER, 430' left of centerline, up to 15' AGL/1608' MSL. Terrain 267' from DER, 494' left of centerline, 1605' MSL. Tree 340' from DER, 472' right of centerline, 37' AGL/1609' MSL. Terrain 1065' from DER, 778' left of centerline, 1618' MSL. Tree 1663' from DER, 718' left of centerline, 41' AGL/1644' MSL. **Rwy 21**, trees, fence, and poles beginning 4' from DER, 239' right of centerline, up to 46' AGL/1608' MSL. Terrain 58' from DER, 18' right of centerline, 1588' MSL. Terrain 169' from DER, 368' left of centerline, 1588' MSL. Terrain 202' from DER, 239' right of centerline, 1585' MSL. Terrain 423' from DER, 533' left of centerline, 1595' MSL. Tree 1082' from DER, 166' left of centerline, 42' AGL/1610' MSL. **Rwy 30**, trees and poles beginning 248' from DER, 121' left of centerline, up to 61' AGL/1611' MSL. Trees, antennas, and poles beginning 275' from DER, 266' right of centerline, up to 42' AGL/1615' MSL.

## KILLEEN, TX

SKYLARK FIELD (ILE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 09015 (FAA)

DEPARTURE PROCEDURE: **Rwy 19**, climb heading 190° to 1900 before turning east.

NOTE: **Rwy 1**, multiple poles beginning 317' from DER, 384' left of centerline, up to 27' AGL/868' MSL. Tree, 973' from DER, 100' left of centerline, 28' AGL/876' MSL. Building, 486' from DER, 9' right of centerline, 13' AGL/854' MSL. Antenna, 351' from DER, 277' right of centerline, 11' AGL/852' MSL. **Rwy 19**, pole, 288' from DER, 588' right of centerline, 32' AGL/880' MSL. Building, 102' from DER, 411' right of centerline, 8' AGL/856' MSL. Vehicle on road, 232' from DER, 499' right of centerline, 15' AGL/867' MSL. Pole, 256' from DER, 497' left of centerline, 32' AGL/873' MSL. Building, 276' from DER, 342' left of centerline, 11' AGL/859' MSL. Building, 298' from DER, 83' left of centerline, 9' AGL/857' MSL.

## KINGSVILLE, TX

KLEBERG COUNTY (IKG)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 10210 (FAA)

NOTE: **Rwy 13**, trees beginning 528' from DER, 515' right of centerline, up to 35' AGL/154' MSL. Trees beginning 775' from DER, 554' left of centerline, up to 35' AGL/159' MSL. **Rwy 31**, trees beginning 184' from DER, 358' right of centerline, up to 28' AGL/153' MSL.

## LAGO VISTA, TX

LAGO VISTA TX-RUSTY ALLEN (RYW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 15064 (FAA)

NOTE: **Rwy 15**, trees beginning 18' from DER, 468' left of centerline, up to 33' AGL/1232' MSL. Buildings beginning 5' from DER, 157' right of centerline, 25' AGL/1225' MSL. Building 160' from DER, 248' left of centerline, 20' AGL/1224' MSL. **Rwy 33**, trees beginning 44' from DER, 132' left of centerline, up to 27' AGL/1266' MSL. Trees beginning 604' from DER, 148' left of centerline, up to 33' AGL/1272' MSL. Trees beginning 14' from DER 159' right of centerline, up to 20' AGL/1259' MSL. Trees beginning 494' from DER, 395' right of centerline, up to 31' AGL/1270' MSL. Vertical structures beginning 272' from DER, 66' left of centerline, up to 5' AGL/1240' MSL.

## LAKEWAY, TX

LAKEWAY AIRPARK (3R9)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 15064 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, 500-2/4 or std. w/min. climb of 265' per NM to 1500.

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 165° to 1700 before proceeding on course.

NOTE: **Rwy 16**, trees on rising terrain beginning 26' from DER, 161' right of centerline, up to 50' AGL/975' MSL. Building 38' from DER, 229' right of centerline, 50' AGL/989' MSL. Tree 194' from DER, 221' left of centerline, 50' AGL/943' MSL. Building and trees beginning 534' from DER, 165' left of centerline, 40' AGL/941' MSL. Power lines with catenary markers beginning 776' from DER, crossing centerline, up to 80' AGL/999' MSL. Tower 2.1 NM from DER, 1314' right of centerline, 195' AGL/1326' MSL. **Rwy 34**, trees beginning abeam DER, right of centerline, up to 50' AGL/931' MSL. Trees and buildings beginning abeam DER, 161' left of centerline, up to 50' AGL/965' MSL. Trees and buildings on rising terrain beginning 3405' from DER, crossing centerline, up to 50' AGL/1009' MSL.

## LAMPASAS, TX

LAMPASAS (LZZ)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 09351 (FAA)

NOTE: **Rwy 16**, building 39' from DER, 374' left of centerline, 20' AGL/1189' MSL. Trees beginning 795' from DER, 217' right of centerline, up to 30' AGL/1189' MSL. **Rwy 34**, trees beginning 657' from DER, 147' left of centerline, up to 30' AGL/1249' MSL.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

17173

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)


**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

  
**DIVERSE VECTOR AREA (RADAR VECTORS)**

17173

**LAREDO, TX****LAREDO INTL (LRD)**
**TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

AMDT 4 11293 (FAA)

DEPARTURE PROCEDURE: **Rwy 14**, climb heading 139° to 1000 before turning right. **Rwy 17L**, climb heading 160° to 1200 before turning right. **Rwy 17R**, climb heading 160° to 1300 before turning right. **Rwy 32**, climb heading 319° to 1200 before turning left. **Rwys 35L, 35R**, climb heading 355° to 1000 before turning left.

NOTE: **Rwy 14**, trees beginning 135' from DER, 298' left of centerline, up to 59' AGL/ 519' MSL. Sign 226' from DER, 244' left of centerline, 14' AGL/ 474' MSL. **Rwy 17L**, terrain beginning 48' from DER, 333' right of centerline, up to 478' MSL. **Rwy 17R**, terrain beginning 4' from DER, 219' right of centerline, up to 489' MSL. Light poles beginning 894' from DER, 344' right of centerline, up to 41' AGL/ 511' MSL. **Rwy 32**, aircraft on taxiway beginning 50' from DER, 367' left of centerline, up to 75' AGL/ 584' MSL. Trees beginning 768' from DER, 584' left of centerline, up to 59' AGL/ 559' MSL. Trees beginning 88' from DER, 275' right of centerline, up to 59' AGL/ 559' MSL. **Rwy 35L**, MALSR 5' from DER, on centerline, 5' AGL/ 505' MSL. Navaid 10' from DER, on centerline, 5' AGL/ 505' MSL. Antenna on building 81' from DER, 404' left of centerline, 30' AGL/ 520' MSL. **Rwy 35R**, terrain beginning 19' from DER, 191' left of centerline, up to 500' MSL. Terrain beginning 176' from DER, 489' right of centerline, up to 512' MSL.

**LAUGHLIN AFB (KDLF),****DEL RIO, TX**
**TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

12348

TAKE-OFF OBSTACLES: **Rwy 13C**, Taxiing aircraft 14' AGL/1079' MSL, 197' from DER, 222' right of centerline. **Rwy 13L**, Taxiing aircraft 14' AGL/1076' MSL, 9' from DER, 204' right of centerline. **Rwy 13R**, Taxiing aircraft 38' AGL/1108' MSL, 1159' from DER, 175' left of centerline. Taxiing aircraft 14' AGL/1090' MSL, 14' from DER, 202' left of centerline. Taxiing aircraft 14' AGL/1090' MSL, 65' from DER, 301' left of centerline. Taxiing aircraft 14' AGL/1093' MSL, 524' from DER, 605' right of centerline. Taxiing aircraft 14' AGL/1093' MSL, 1163' from DER, 599' right of centerline. **Rwy 31C**, Vehicular traffic 10' AGL/1092' MSL, 16' from DER, 466' right of centerline. **Rwy 31L**, Taxiing aircraft 14' AGL/1091' MSL, 196' from DER, 174' right of centerline. Vehicular traffic 10' AGL/1088' MSL, 861' from DER, 549' left of centerline. Taxiing aircraft 14' AGL/1094' MSL, 329' from DER, 329' right of centerline. Taxiing aircraft 14' AGL/1089' MSL, 177' from DER, 170' left of centerline. Pole 8' AGL/1084' MSL, 228' from DER, 567' left of centerline. Pole 8' AGL/1083' MSL, 397' from DER, 625' left of centerline. Pole 8' AGL/1084' MSL, 344' from DER, 682' left of centerline. **Rwy 31R**, Terrain 1082' MSL, 0' from DER, 500' left of centerline. Terrain 1083' MSL, 141' from DER, 516' left of centerline. Terrain 1083' MSL, 173' from DER, 546' left of centerline. Vehicular traffic 10' AGL/1092' MSL, 609' from DER, 534' left of centerline. Terrain 1085' MSL, 115' from DER, 521' right of centerline. Terrain 1083' MSL, 72' from DER, 449' right of centerline. Taxiing aircraft 14' AGL/ 1090' MSL, 6' from DER, 174' left of centerline. Railroad 23' AGL/1102' MSL, 1423' from DER, 469' right of centerline. Windsock 26' AGL/1101' MSL, 19' from DER, 496' left of centerline. Railroad 23' AGL/1102' MSL, 1239' from DER, 869' left of centerline.

**LLANO, TX****LLANO MUNI (AQO)**
**TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES**

ORIG 09351 (FAA)

TAKEOFF MINIMUMS: **Rwys 13, 31**, NA-Environmental. DEPARTURE PROCEDURE: **Rwy 35**, climb heading 354° to 1900 before proceeding on course.

NOTE: **Rwy 17**, tree 11' from DER, 364' left of centerline, 25' AGL/1144' MSL. Trees 811' from DER, 242' left of centerline, 25' AGL/1124' MSL. **Rwy 35**, hangar 209' from DER, 497' right of centerline, 30' AGL/1149' MSL. Tree 485' from DER, 265' right of centerline, 25' AGL/1144' MSL. Vehicles on North-South road, 270' left of centerline, 15' AGL/1114' MSL. Vehicles on road 390' from DER, crosses centerline East-West, 15' AGL/1134' MSL.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

17173


**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND**

  
**DIVERSE VECTOR AREA (RADAR VECTORS)**

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

17173

## LOCKHART, TX

LOCKHART MUNI (50R)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 11237 (FAA)

TAKEOFF MINIMUMS: **Rwy 36**, 400-3 or std. w/min.  
climb of 275' per NM to 1200.

DEPARTURE PROCEDURE: **Rwy 36**, climb heading  
355° to 1200 before turning.

NOTE: **Rwy 18**, trees beginning 47' from DER, 267' left  
of centerline, up to 65' AGL/555' MSL. Trees beginning  
245' from DER, 13' right of centerline, up to 42'  
AGL/541' MSL. **Rwy 36**, bush 51' from DER, 305' right  
of centerline, 8' AGL/568' MSL. Pole 1298' from DER,  
561' right of centerline, 38' AGL/568' MSL. Tower 2.2  
NM from DER, 2536' right of centerline, 378' AGL/918'  
MSL.

## MARFA, TX

MARFA MUNI (MRF)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 11013 (FAA)

TAKEOFF MINIMUMS: CAUTION: Unmarked balloon  
and cable to 14000' MSL in R-6318. **Rwys 8, 26**, NA-  
Environmental.

DEPARTURE PROCEDURE: **Rwy 4**, climbing right turn  
direct MRF VOR/DME, thence...

**Rwy 13**, climb direct MRF VOR/DME, thence...

**Rwys 22, 31**, climbing left turn direct MRF VOR/  
DME, thence... All aircraft climb in MRF holding

pattern (Hold SE, left turns, 313° inbound) to cross  
MRF VOR/DME at or above MEA for direction of flight.

NOTE: **Rwy 4**, trees beginning 899' from DER, 310' left  
of centerline, up to 50' AGL/4929' MSL. Vehicles on  
road beginning 176' from DER, 175' left of centerline,  
up to 15' AGL/4874' MSL. **Rwy 13**, vehicles on road  
beginning 544' from DER, left and right of centerline,  
up to 15' AGL/4854' MSL. **Rwy 22**, building and  
greenhouses beginning 28' from DER, 493' left of  
centerline, up to 35' AGL/4864' MSL.

## MASON, TX

MASON COUNTY (T92)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1A 15092 (FAA)

TAKEOFF MINIMUMS: **Rwys 13, 31**, NA. **Rwy 36**, 300-  
1 or std. w/ min. climb of 299' per NM to 1800.

DEPARTURE PROCEDURE: **Rwy 18**, climb heading  
181° to 2100' before turning right.

NOTE: **Rwy 18**, terrain beginning 163' from DER, 185'  
right of centerline, up to 1520' MSL. **Rwy 36**, terrain  
beginning 361' from DER, 6' left of centerline, up to  
1533' MSL. TL tower 3061' from DER, 1185' left of  
centerline, 95' AGL/ 1628' MSL. Multiple TL towers  
beginning 3940' from DER, 194' left of centerline, 85'  
AGL/ 1636' MSL. Multiple TL towers beginning 4427'  
from DER, 304' right of centerline, 90' AGL/ 1667'  
MSL.

## MC ALLEN, TX

MC ALLEN MILLER INTL (MFE)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 15344 (FAA)

TAKEOFF MINIMUMS: **Rwy 36**, 300-1½, or std. w/min.  
climb of 296' per NM to 500'.

NOTE: **Rwy 14**, trees beginning 792' from DER, 593' left  
of centerline, up to 44' AGL/139' MSL. **Rwy 32**, trees  
and poles beginning 709' from DER, 362' left of  
centerline, up to 52' AGL/157' MSL. Tree 1019' from  
DER, 627' right of centerline, 42' AGL/142' MSL.

**Rwy 36**, pole 581' from DER, on centerline, 19'  
AGL/122' MSL. Tower 198' from DER, 335' left of  
centerline, 38' AGL/140' MSL. Buildings and trees  
beginning 652' from DER, 36' left of centerline, up to 50'  
AGL/155' MSL. Towers, poles and buildings beginning  
635' from DER, 25' right of centerline, up to 62' AGL/166'  
MSL. Buildings 2016' from DER, 860' right of centerline,  
89' AGL/197' MSL. Buildings 1.29 NM from DER, 243'  
right of centerline, 263' AGL/394' MSL.

## MIDLAND, TX

MIDLAND AIRPARK (MDD)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 3 10294 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, 400-2½ or std. w/ min.  
climb of 211' per NM to 3300, or alternatively, with  
standard takeoff minimums and a normal 200' per NM  
climb gradient, takeoff must occur no later than 1700'  
prior to DER. **Rwy 25**, 300-2 or standard with minimum  
climb of 208' per NM to 3100, or alternatively, with  
standard takeoff minimums and a normal 200' per NM  
climb gradient, takeoff must occur no later than 1300'  
prior to DER.

NOTE: **Rwy 7**, multiple light poles beginning 317' from  
DER, 245' left of centerline, up to 52' AGL/2863' MSL.  
Vehicle on road 88' from DER, 444' left of centerline, 17'  
AGL/2820' MSL. Tree 174' from DER, 360' left of  
centerline 60' AGL/2801' MSL. Bush 218' from DER, 442'  
right of centerline, up to 12' AGL/2797' MSL. **Rwy 16**,  
multiple trees and poles beginning 196' from DER, 291'  
right of centerline, up to 52' AGL/2842' MSL. Trees  
beginning 857' from DER, 228' left of centerline, up to 60'  
AGL/2842' MSL. Building 2.1 NM from DER, 3680' left of  
centerline, 354' AGL/3134' MSL. Bush 37' from DER,  
491' right of centerline, up to 12' AGL/2803' MSL.

**Rwy 25**, multiple light poles beginning 151' from  
DER, 12' right of centerline up to 52' AGL/2876' MSL.  
Trees beginning 1192' from DER, 41' right of centerline  
up to 60' AGL/2846' MSL. Multiple buildings beginning  
1417' from DER, 433' left of centerline, 40' AGL/2851'  
MSL. Vehicle on road 203' from DER, 347' right of  
centerline, 17' AGL/2835' MSL. Sign 1202' from DER,  
206' left of centerline 35' AGL/2835' MSL. **Rwy 34**,  
Trees beginning 839' from DER, 329' right of centerline,  
up to 60' AGL/2850' MSL. Light pole 635' from DER, 611'  
right of centerline 52' AGL/2843' MSL. Vehicle on road  
572' from DER, 424' left of centerline 17' AGL/2833' MSL.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

17173

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

17173

## MIDLAND, TX (CON'T)

MIDLAND INTL AIR AND SPACE PORT  
(MAF)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1A 17173 (FAA)

TAKEOFF MINIMUMS: **Rwy 34L**, 300-1½ or std. w/min. climb of 400' per NM to 3200. **Rwy 34R**, 300-1¼ or std. w/min. climb of 320' per NM to 3200.

NOTE: **Rwy 04**, trees beginning 24' from DER, 34' right of centerline, up to 40' AGL/2903' MSL. Rods, towers and domes beginning 1231' from DER, 442' left of centerline, up to 108' AGL/2963' MSL. **Rwy 10**, rods, antennas, and lights beginning 72' from DER, 40' right of centerline, up to 20' AGL/2874' MSL. Trees, poles, and signs beginning 1296' from DER, 457' left of centerline, up to 40' AGL/2913' MSL. **Rwy 16L**, signs and poles beginning 94' from DER, 20' left of centerline, up to 30' AGL/2877' MSL. Railroad beginning 530' from DER, 17' left of centerline, 23' AGL/2869' MSL. Vehicles on road beginning 301' from DER, 268' left of centerline, 17' AGL/2862' MSL. **Rwy 16R**, pole 1794' from DER, 975' right of centerline, 55' AGL/2906' MSL. **Rwy 22**, tower, poles, lights, and antenna beginning 111' from DER, 66' right of centerline, up to 102' AGL/2986' MSL. Hangars 1112' from DER, 600' right of centerline, 55' AGL/2906' MSL. Tower, poles, and sign beginning 83' from DER, 62' left of centerline, up to 120' AGL/2971' MSL. **Rwy 34L**, drilling rigs beginning 211' from DER, 178' right of centerline, up to 165' AGL/3037' MSL. Drilling rigs beginning 3228' from DER, 769' left of centerline, 165' AGL/3056' MSL. **Rwy 34R**, vehicles on road beginning 256' from DER, 10' right of centerline, up to 17' AGL/2881' MSL. Trees and bushes beginning 171' from DER, 80' right of centerline, up to 40' AGL/2878' MSL. Poles and fence beginning 28' from DER, 109' right of centerline, up to 38' AGL/2903' MSL. Fence beginning 83' from DER, 271' left of centerline, 8' AGL/2872' MSL. Windmill, poles and trees beginning 1239' from DER, 116' left of centerline, up to 66' AGL/2913' MSL. Drilling rig 5540' from DER, 267' left of centerline, 165' AGL/3025' MSL.

## MONAHANS, TX

ROY HURD MEMORIAL (E01)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 12152 (FAA)

TAKEOFF MINIMUMS: **Rwy 1**, 400-1½ or std. w/min. climb of 434' per NM to 3100. **Rwy 12**, 300-1 or std. w/min. climb of 552' per NM to 2900.

NOTE: **Rwy 1**, vehicles on road, trees, and power line and poles beginning 185' from DER, left and right of centerline, up to 40' AGL/2649' MSL. Tower 1.2 NM from DER, 211' right of centerline, 303' AGL/2928' MSL. **Rwy 12**, bush 75' from DER, 479' left of centerline, 12' AGL/2617' MSL. Trees and a pole beginning 778' from DER, 23' right of centerline, up to 31' AGL/2641' MSL. Trees beginning 1041' from DER, 29' left of centerline, up to 42' AGL/2652' MSL. Tower 2283' from DER, 909' left of centerline, 130' AGL/2744' MSL. **Rwy 19**, vehicle on road 215' from DER, 457' right of centerline, 15' AGL/2624' MSL. **Rwy 30**, fence, railroad, poles, and trees beginning 56' from DER, 106' right of centerline, up to 44' AGL/2649' MSL. Vehicle on road, light pole, building, and poles beginning 294' from DER, 41' left of centerline, up to 50' AGL/2655' MSL.

17173

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

## NEW BRAUNFELS, TX

NEW BRAUNFELS RGNL (BAZ)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 15176 (FAA)

NOTE: **Rwy 13**, poles beginning 1236' from DER, 277' right of centerline, up to 40' AGL/678' MSL. Poles beginning 1238' from DER, 557' left of centerline, up to 41' AGL/677' MSL. Trees beginning 1339' from DER, 211' right of centerline, up to 55' AGL/690' MSL. **Rwy 35**, airport visual aid 56' from DER, 25' right of centerline, 3' AGL/649' MSL.

## ODESSA, TX

ODESSA-SCHLEMAYER FIELD (ODO)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 3 12208 (FAA)

TAKEOFF MINIMUMS: **Rwy 20**, 300-2½ or std. w/min. climb of 225' per NM to 3400, or alternatively, with standard takeoff minimum and a normal 200' per NM climb gradient, takeoff must occur no later than 2100' prior to DER.

NOTE: **Rwy 2**, Vehicles on roadway 184' from DER left and right of centerline, up to 13' AGL/3013' MSL. **Rwy 16**, Building 466' from DER, 487' left of centerline, 50' AGL/3029' MSL. Power lines 960' from DER left and right of centerline, 30' AGL/2988' MSL. **Rwy 20**, Tower 2 NM from DER, 1311' left of centerline, 340' AGL/3287' MSL. **Rwy 29**, Rising terrain, trees and poles beginning 8' from DER, 495' right of centerline, up to 27' AGL/3012' MSL. **Rwy 34**, Vehicles on roadway beginning 48' from DER, left and right of centerline, up to 16' AGL/3001' MSL. Hangars 739' from DER, 628' left of centerline, 25' AGL/3012' MSL. Antenna 1104' from DER, 185' right of centerline, 45' AGL/3032' MSL.

## OZONA, TX

OZONA MUNI (OZA)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 03191 (FAA)

TAKEOFF MINIMUMS: **Rwy 16**, 300-1 or std. with a min. climb of 445' per NM to 2700. **Rwy 34**, 200-1½ or std. with a min. climb of 380' per NM to 2600.

NOTE: **Rwy 16**, trees 3686' from DER, 354' left of centerline, 100' AGL/2560' MSL. Trees 4436' from DER, 355' left of centerline, 100' AGL/2574' MSL. **Rwy 34**, trees 1363' from DER, 638' left of centerline, 100' AGL/2529' MSL. Trees 3479' from DER, 791' left of centerline, 100' AGL/2535' MSL. Trees 7679' from DER, 932' left of centerline, 100' AGL/2593' MSL.

## PEARSALL, TX

MC KINLEY FIELD (T30)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 11321 (FAA)

NOTE: **Rwy 13**, trees beginning abeam DER, 300' left of centerline, up to 40' AGL/605' MSL. Transmission lines beginning 1777' from DER, across centerline, up to 80' AGL/642' MSL. **Rwy 31**, train on track 496' from DER, across centerline, 23' AGL/610' MSL. Vehicle on road 291' from DER, across centerline, 15' AGL/602' MSL.

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17173

## PECOS, TX

### PECOS MUNI (PEQ)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 12264 (FAA)

NOTE: **Rwy 14**, bush 170' from DER, 252' right of centerline, up to 7' AGL/2607' MSL. **Rwy 32**, bush 129' from DER, 348' left of centerline, up to 9' AGL/2614' MSL.

## PLEASANTON, TX

### PLEASANTON MUNI (PEZ)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 08325 (FAA)

NOTE: **Rwy 16**, vehicle on road 108' from DER, 285' left of centerline, 15' AGL/424' MSL. Fence 135' from DER, 194' left of centerline, 3' AGL/412' MSL. Fence 235' from DER, 38' right of centerline, 3' AGL/412' MSL. Trees beginning 246' from DER, 56' left of centerline, up to 100' AGL/529' MSL. Trees beginning 173' from DER, 154' right of centerline, up to 100' AGL/529' MSL. **Rwy 34**, vehicle on road 136' from DER, left to right of centerline, up to 15' AGL/444' MSL. Fence 191' from DER, 251' left of centerline, 3' AGL/442' MSL. Trees beginning 210' from DER, 51' left of centerline, up to 100' AGL/539' MSL. Tree 172' from DER, 74' right of centerline, 100' AGL/529' MSL.

## PORT ARANSAS, TX

### MUSTANG BEACH (RAS)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 09015 (FAA)

NOTE: **Rwy 12**, transmission towers and poles beginning 43' from DER, 28' right of centerline, up to 81' AGL/86' MSL. Building 2435' from DER, 967' right of centerline, 130' AGL/135' MSL. Transmission towers and poles beginning 1141' from DER, 13' left of centerline, up to 83' AGL/88' MSL. **Rwy 30**, boat 1657' from DER, 915' left of centerline, 50' AGL/50' MSL.

## PORT ISABEL, TX

### PORT ISABEL-CAMERON COUNTY (PIL)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 2A 16231 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, 400-2 or std. with a min. climb of 260' per NM to 500.

NOTE: **Rwy 3**, trees beginning 178' from DER, 27' left of centerline, up to 100' AGL/114' MSL. **Rwy 8**, trees beginning 2046' from DER, 511' right of centerline, up to 100' AGL/119' MSL. Trees beginning 1981' from DER, 118' right of centerline, up to 100' AGL/119' MSL. **Rwy 13**, trees beginning 530' from DER, 32' left of centerline, up to 100' AGL/119' MSL. **Rwy 17**, trees beginning 911' from DER, 84' left of centerline, up to 100' AGL/119' MSL. Tower 1.7 NM from DER, 470' right of centerline, 277' AGL/292' MSL. **Rwy 35**, trees beginning 15' from DER, 4' left of centerline, up to 100' AGL/114' MSL.

## PRESIDIO, TX

### PRESIDIO LELY INTL (PRS)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 14093 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, std. w/min. climb of 230' per NM to 5600, or 1900-3 for climb in visual conditions. **Rwy 35**, std. w/min. climb of 280' per NM to 5700, or 1900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 17**, climbing left turn to 9000 on heading 045° and MRF VOR/DME R-185 to MRF VOR/DME, or for climb in visual conditions, cross Presidio Lely Intl airport at or above 4700, then climb to 9000 on heading 021° and MRF VOR/DME R-197 to MRF VOR/DME. When executing VCOA, notify ATC prior to departure. **Rwy 35**, climbing right turn to 9000 on heading 065° and MRF VOR/DME R-190 to MRF VOR/DME, or for climb in visual conditions, cross Presidio Lely Intl airport at or above 4700, then climb to 9000 on heading 021° and MRF VOR/DME R-197 to MRF VOR/DME. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 17**, brush abeam DER, left and right of centerline, up to 10' AGL/2929' MSL. Power line 990' from DER, 762' left of centerline, 86' AGL/3005' MSL. Vehicles on road, 990' from DER, 762' left of centerline, 17' AGL/2936' MSL. **Rwy 35**, brush abeam DER, left and right of centerline, up to 10' AGL/3089' MSL. Powerlines beginning 2978' from DER, 749' right of centerline, up to 86' AGL/3205' MSL. Vehicles on road, 2978' from DER, 1291' right of centerline, up to 17' AGL/3016' MSL.

## ROBSTOWN, TX

### NUECES COUNTY (RBO)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

AMDT 1 12264 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, std. w/min. climb of 264' per NM to 1400 or 1400-2½ for climb in visual conditions. DEPARTURE PROCEDURE: **Rwy 13**, climb heading 129° to 1400 before turning eastbound or northbound. For climb in visual conditions, cross Nueces County airport at or above 1300' MSL before proceeding on course. When executing VCOA, notify ATC prior to departure. **Rwy 31**, climb heading 309° to 700 before turning southeast bound.

NOTE: **Rwy 13**, tower 4.8 NM from DER, 5070' right of centerline, 989' AGL/1049' MSL. Poles beginning 1005' from DER, 347' right of centerline, up to 42' AGL/116' MSL. Poles, vehicles on road, post, transmission tower and grain bin/silo beginning at DER, 69' left of centerline, up to 62' AGL/136' MSL. **Rwy 31**, vehicles on road and pole beginning 2' from DER, 250' right of centerline, 15' AGL/93' MSL.

## ROCKPORT, TX

### ARANSAS COUNTY (RKP)

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 07074 (FAA)

NOTE: **Rwy 14**, road plus vehicle 500' from DER, 593' left of centerline, 17' AGL/40' MSL. **Rwy 18**, antenna 5599' from DER, 602' left of centerline, 160' AGL/171' MSL.

**Rwy 32**, road plus vehicle 291' from DER, 533' left of centerline, 17' AGL/40' MSL. **Rwy 36**, road plus vehicle 576' from DER, 597' left of centerline, 17' AGL/40' MSL.

17173

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DIVERSE VECTOR AREA (RADAR VECTORS)**

17173

**ROCKSPRINGS, TX**

EDWARDS COUNTY (ECU)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 06271 (FAA)

NOTE: **Rwy 14**, multiple trees beginning 1076' from DER, 22' right of centerline, up to 100' AGL/2459' MSL. **Rwy 32**, fence 101' from DER, 35' left of centerline, 5' AGL/2374' MSL. Multiple trees beginning 318' from DER, 71' left of centerline, up to 100' AGL/2479' MSL. Multiple trees beginning 992' from DER, 532' right of centerline, up to 100' AGL/2479' MSL.

**SAN ANGELO, TX**

SAN ANGELO RGNL/MATHIS FIELD (SJT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1 10238 (FAA)

DEPARTURE PROCEDURE: **Rwy 27**, climb to 2500 before turning right. **Rwy 36**, climb to 2600 before turning left.

NOTE: **Rwy 3**, fence 8' from DER, 490' right of centerline, 3' AGL/1896' MSL. **Rwy 18**, multiple trees and poles beginning 112' from DER, 183' left of centerline, up to 43' AGL/1962' MSL. Multiple trees and poles beginning 1076' from DER, 114' right of centerline, up to 47' AGL/1966' MSL. Catenary 1779' from DER, 457' right of centerline, 45' AGL/1964' MSL. **Rwy 27**, multiple trees beginning 482' from DER, 74' left of centerline, up to 24' AGL/1933' MSL. Light pole 1040' from DER, 252' left of centerline, 22' AGL/1931' MSL. Tree 538' from DER, 226' right of centerline, 21' AGL/1930' MSL.

**SAN ANTONIO, TX**

BOERNE STAGE FIELD (5C1)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
ORIG 07018 (FAA)

DEPARTURE PROCEDURE: **Rwy 35**, climb heading 346° to 2800 before turning westbound.

NOTE: **Rwy 17**, multiple trees and light poles along tree line beginning 6' from DER, 128' right of centerline, up to 50' AGL/1427' MSL. Multiple trees and light poles along tree line beginning 81' from DER, 144' left of centerline, up to 50' AGL/1409' MSL. **Rwy 35**, multiple trees and poles beginning 204' from DER, 7' left of centerline, up to 50' AGL/1422' MSL. Multiple trees and poles beginning 205' from DER, 24' right of centerline, up to 50' AGL/1423' MSL. Hangar 80' from DER, 222' right of centerline, up to 50' AGL/1397' MSL.

**SAN ANTONIO, TX (CON'T)**

SAN ANTONIO INTL (SAT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 1A 17061 (FAA)

NOTE: **Rwy 13R**, antenna on rtr tower, 1034' from DER, 723' right of centerline, 42' AGL/820' MSL. Building 3801' from DER, 1488' right of centerline, 117' AGL/881' MSL. **Rwy 22**, antenna on hangar and flagpole 1198' from DER, 700' right of centerline, 39' AGL/825' MSL. Poles beginning 2209' from DER, 1041' right of centerline, up to 23' AGL/869' MSL. Sign 2713' from DER, 1034' right of centerline, 71' AGL/857' MSL. **Rwy 31L**, pole 1931' from DER, 911' left of centerline, 42' AGL/867' MSL. Poles beginning 2356' from DER, 913' left of centerline, up to 42' AGL/892' MSL. Sign 2435' from DER, 1032' right of centerline, 42' AGL/873' MSL. Tower 2766' from DER, 834' left of centerline, 54' AGL/891' MSL. **Rwy 31R**, rod on of gs 1261' from DER, 591' left of centerline, 57' AGL/854' MSL.

**STINSON MUNI (SSF)**

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES  
AMDT 2 08045 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, Std. w/ min climb of 225' per NM to 1900 or 1000-2½ for climb in visual conditions. **Rwy 27**, 300-1¼ or std. w/ min. climb of 221' per NM to 900, or alternatively, with standard takeoff minimums and normal 200' per NM climb gradient, takeoff must occur no later than 1700' prior to DER. DEPARTURE PROCEDURE: **Rwy 9**, For climb in visual conditions, cross Stinson Muni Airport at or above 1400 MSL before proceeding on course. **Rwy 14**, Climb heading 137° to 1200 before turning left. **Rwy 32**, Climb heading 317° to 1500 before turning right.

NOTES: **Rwy 9**, Vehicle on road 285' from DER, 380' left of centerline, 15' AGL/584' MSL. Trees beginning 1653' from DER, 435' right of centerline, up to 70' AGL/629' MSL. **Rwy 14**, Vehicle on road 114' from DER, on centerline extending 373' left of centerline, up to 15' AGL/564' MSL. Trees beginning 72' from DER, 79' right of centerline, up to 70' AGL/607' MSL. Trees beginning 232' from DER, 54' left of centerline, up to 70' AGL/618' MSL. Transmission line tower 4205' from DER, 133' right of centerline, 119' AGL/663' MSL. **Rwy 27**, Fence 41' from DER, 30' right of centerline, 8' AGL/584' MSL. Vehicle on road 108' from DER, 202' right of centerline, 15' AGL/584' MSL. Vehicle on road 123' from DER, 113' right of centerline, 15' AGL/596' MSL. Trees and poles beginning 229' from DER, 117' right of centerline, up to 70' AGL/645' MSL. Trees and poles beginning 599' from DER, 6' left of centerline, up to 70' AGL/634' MSL. Tank beginning 1.32 NM from DER, 1338' right of centerline, 179' AGL/799' MSL. Building 1422' from DER, 432' right of centerline, 40' AGL/627' MSL. Building 2133' from DER, 36' left of centerline, 55' AGL/635' MSL. **Rwy 32**, Fence 17' from DER, 80' left of centerline, 8' AGL/578' MSL. Vehicle on road 54' from DER, 199' left of centerline, 15' AGL/586' MSL. Trees beginning 164' from DER, 125' right of centerline, up to 70' AGL/639' MSL. Trees and poles beginning 43' from DER, 41' left of centerline, up to 75' AGL/668' MSL.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

17173

**TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND  
DIVERSE VECTOR AREA (RADAR VECTORS)**

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)

17173

## SINTON, TX

ALFRED C. BUBBA THOMAS (T69)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG-A 14317 (FAA)

TAKEOFF MINIMUMS: **Rwy 3, 21**, NA-Environmental.  
DEPARTURE PROCEDURE: **Rwy 14**, climb runway  
heading to 800 prior to turning east.

NOTE: **Rwy 32**, vehicle on road 29' from DER, 308' right  
of centerline, 15' AGL/64' MSL.

## SONORA, TX

SONORA MUNI (SOA)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 15232 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, 300-1 or std. w/min.  
climb gradient of 553' per NM to 2400.

DEPARTURE PROCEDURE: **Rwy 18**, climb heading  
182° to 2900 before turning left.

NOTE: **Rwy 18**, buildings beginning 683' from DER, left  
and right of centerline, up to 27' AGL/2163' MSL.

Trees and terrain beginning 2233' from DER, 686' right  
of centerline, up to 50' AGL/2309' MSL. Tower 4860'  
from DER, 1458' right of centerline, 75' AGL/2287'  
MSL. **Rwy 36**, fence beginning 2' from DER, left and  
right of centerline, up to 5' AGL/2144' MSL. Vehicles  
on road beginning 8' from DER, left and right of  
centerline, up to 10' AGL/2149' MSL. Tree 65' from  
DER, 462' right of centerline, 48' AGL/2178' MSL. Tree  
247' from DER, 337' left of centerline, 47' AGL/2187'  
MSL. Trees beginning 278' from DER, 439' right of  
centerline, up to 27' AGL/2157' MSL. Tree 759' from  
DER, 508' left of centerline, 15' AGL/2195' MSL. Trees  
and terrain beginning 981' from DER, 258' left of  
centerline, up to 39' AGL/2269' MSL.

## TAYLOR, TX

TAYLOR MUNI (T74)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 15064 (FAA)

NOTE: **Rwy 17**, Transmission line towers beginning  
2213' from DER, crossing centerline, up to 110'  
AGL/661' MSL. **Rwy 35**, vehicle on road 773' from  
DER, crossing centerline, 15' AGL/645' MSL. Pole  
829' from DER, 448' left of centerline, 28' AGL/642'  
MSL. Tree 1129' from DER, 415' right of centerline, 20'  
AGL/639' MSL. Poles beginning 1150' from DER, 475'  
right of centerline, up to 30' AGL/644' MSL.

## TEMPLE, TX

DRAUGHON-MILLER CENTRAL TEXAS  
RGNL (TPL)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 4 10266 (FAA)

DEPARTURE PROCEDURE: **Rwy 2**, climb on heading  
between 085° CW to 200° from DER, or climb on  
heading between 200° CW to 345° from DER to 3600  
before proceeding on course or minimum climb of 250'  
per NM to 3200 for all other courses. **Rwy 33**, climb on  
heading between 070° CW to 155° from DER, or climb on  
heading between 155° CW to 330° from DER to 3600  
before proceeding on course or minimum climb of 240'  
per NM to 3200 for all other courses.

NOTE: **Rwy 2**, tree 279' from DER, 362' right of  
centerline, 11' AGL/680' MSL. Bushes and tree beginning  
176' from DER, 416' left of centerline, up to 30' AGL/699'  
MSL. **Rwy 15**, bush 60' from DER, 210' left of centerline,  
11' AGL/680' MSL. **Rwy 20**, hangars beginning 548'  
from DER, 571' right of centerline, up to 18' AGL/697'  
MSL. **Rwy 33**, trees beginning 307' from DER, 474' right  
of centerline, up to 32' AGL/701' MSL.

## UVALDE, TX

GARNER FIELD (UVA)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 11125 (FAA)

NOTE: **Rwy 15**, trees and poles beginning 70' from DER,  
374' left of centerline, up to 100' AGL/1039' MSL. Trees  
and poles beginning 208' from DER, 359' right of  
centerline, up to 100' AGL/1059' MSL. **Rwy 33**, vehicle on  
roadway 622' from DER, left and right of centerline, up to  
15' AGL/966' MSL. Trees beginning 744' from DER, 636'  
left of centerline, up to 100' AGL/1059' MSL. Trees  
beginning 861' from DER, 269' right of centerline, up to  
100' AGL/1049' MSL.

## VAN HORN, TX

CULBERSON COUNTY (VHN)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

TAKEOFF MINIMUMS: **Rwys 17, 21**, 2100-2 or std. with a  
min. climb of 500' per NM to 5000. **Rwy 25**, NA.

DEPARTURE PROCEDURE: **Rwys 3, 17, 21, 35**, climb  
runway heading to 5000 then climbing right turn direct  
VHN NDB and climb in VHN NDB holding pattern to  
MEA, before proceeding on course. **Rwy 7**, climb runway  
heading to 5000 then climbing left turn direct VHN NDB  
and climb in VHN NDB holding pattern to MEA, before  
proceeding on course.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

17173

# TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND DIVERSE VECTOR AREA (RADAR VECTORS)



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17173

## WACO, TX

MC GREGOR EXECUTIVE (PWG)  
TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 2 90347 (FAA)

TAKEOFF MINIMUMS: **Rwys 4, 17, 22, 35**, 2000-3 or  
std. with a min. climb of 280' per NM to 3000.

DEPARTURE PROCEDURE: **Rwys 17,22**, climb via  
ACT R-195 to 3000 before proceeding on course.

**Rwys 4, 35**, climb runway heading to 3000 before  
proceeding on course.

## TSTC-WACO (CNW)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 08269 (FAA)

NOTE: **Rwy 17L**, terrain 198' from DER, 467' right of  
centerline, 464' MSL. **Rwy 17R**, vehicle on road 137'  
from DER, 487' right of centerline, 15' AGL/474' MSL.  
Trees beginning 872' from DER, 238' right of  
centerline, up to 100' AGL/529' MSL. Trees beginning  
1239' from DER, 74' left of centerline, up to 100'  
AGL/512' MSL. **Rwy 35L**, trees beginning 3386' from  
DER, 529' left of centerline, up to 100' AGL/579' MSL.  
**Rwy 35R**, trees beginning 2606' from DER, 1042'  
right of centerline, up to 100' AGL/579' MSL. Tree  
2094' from DER, 910' left of centerline, 45' AGL/524'  
MSL.

## WACO RGNL (ACT)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

ORIG 10266 (FAA)

NOTE: **Rwy 1**, rising terrain beginning 11' from DER,  
34' right of centerline, up to 504' MSL. Pole 1170' from  
DER, 593' left of centerline, 34' AGL/534' MSL. Tree  
1674' from DER, 794' right of centerline, 80' AGL/581'  
MSL. **Rwy 19**, rod 590' from DER, 257' right of  
centerline, 40' AGL/524' MSL. **Rwy 32**, trees  
beginning 501' from DER, 17' left of centerline, up to  
70' AGL/562' MSL. Trees beginning 836' from DER,  
30' right of centerline, up to 80' AGL/609' MSL.

## WESLACO, TX

MID VALLEY (T65)

TAKEOFF MINIMUMS AND (OBSTACLE)  
DEPARTURE PROCEDURES

AMDT 1 17061 (FAA)

DEPARTURE PROCEDURE: **Rwy 14**, climbing left turn  
heading 360° to 1800 before proceeding on course.

NOTE: **Rwy 14**, road, fence, sign, tree, bldg, beginning 4'  
from DER, 174' left of centerline, up to 84' MSL. Road,  
fence, beginning 18' from DER, 442' right of centerline,  
up to 82' MSL. Road 71' from DER, 502' right of  
centerline, 83' MSL. Tree, flagpole, road, pole, beginning  
94' from DER, 421' left of centerline, up to 26' AGL/90'  
MSL. Flagpole, road, beginning 110' from DER, 373' left  
of centerline, up to 31' AGL/96' MSL. Tree, road, fence,  
beginning 161' from DER, 429' left of centerline, up to 33'  
AGL/98' MSL. Pole, beginning 220' from DER, 408' left of  
centerline, up to 32' AGL/99' MSL. Pole, tree, beginning  
242' from DER, 412' left of centerline, up to 34' AGL/101'  
MSL. Light pole, beginning 284' from DER, 462' left of  
centerline, up to 38' AGL/103' MSL. Pole, tree, it pole,  
beginning 289' from DER, 349' left of centerline, up to 37'  
AGL/105' MSL. Pole, tree, it pole, beginning 360' from  
DER, 307' left of centerline, up to 39' AGL/106' MSL.  
Pole 499' from DER, 475' right of centerline, 31' AGL/98'  
MSL. Pole 499' from DER, 471' right of centerline, 30'  
AGL/99' MSL. Tower, tree, pole, it pole, ant, flagpole,  
bldg, beginning 511' from DER, 264' left of centerline, up  
to 60' AGL/131' MSL. Catenary, road, pole, beginning  
520' from DER, 468' right of centerline, up to 33'  
AGL/100' MSL. Pole, tree, beginning 546' from DER,  
337' right of centerline, up to 33' AGL/101' MSL. Tree, it  
pole, catenary, beginning 745' from DER, 268' right of  
centerline, up to 42' AGL/108' MSL. Antenna, pole,  
catenary, beginning 1422' from DER, 437' right of  
centerline, up to 59' AGL/127' MSL. Flagpole, pole,  
beginning 1711' from DER, 763' right of centerline, up to  
75' AGL/142' MSL. **Rwy 32**, road, fence, beginning 17'  
from DER, 345' left of centerline, up to 82' MSL. Tree 64'  
from DER, 510' left of centerline, 29' AGL/95' MSL. Tree  
69' from DER, 496' left of centerline, 32' AGL/97' MSL.  
Pole 109' from DER, 524' left of centerline, 33' AGL/100'  
MSL. Pole, road, tree, bldg, beginning 111' from DER,  
261' left of centerline, up to 38' AGL/103' MSL. Road,  
beginning 562' from DER, 396' right of centerline, up to  
87' MSL. Road 630' from DER, 391' right of centerline,  
88' MSL. Road, beginning 659' from DER, 75' right of  
centerline, up to 89' MSL. Trees, beginning 881' from  
DER, 571' left of centerline, up to 40' AGL/106' MSL.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

17173

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17173

**WINK, TX****WINKLER COUNTY (INK)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG-A 11069 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, climb heading 147° to 3400 before proceeding on course.

NOTE: **Rwy 4**, power lines beginning 524' from DER, right and left of centerline, up to 30' AGL/2829' MSL. Trees beginning 742' from DER, right and left of centerline, up to 50' AGL/2859' MSL. **Rwy 13**, trees beginning 133' from DER, 307' right of centerline, up to 50' AGL/2822' MSL. Vehicles on road beginning 535' from DER, right and left of centerline, up to 15' AGL/2829' MSL. **Rwy 31**, trees beginning 49' from DER, 396' left of centerline, up to 50' AGL/2832' MSL. Trees beginning 1563' from DER, 585' right of centerline, up to 50' AGL/2874' MSL.

**WINTERS, TX****WINTERS MUNI (77F)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 11237 (FAA)

NOTE: **Rwy 17**, multiple trees and fence beginning 428' from DER, 45' left of centerline, up to 25' AGL/1914' MSL. Multiple trees and terrain beginning 110' from DER, 188' right of centerline, up to 12' AGL/1895' MSL.

**YOAKUM, TX****YOAKUM MUNI (T85)**

TAKEOFF MINIMUMS AND (OBSTACLE)

DEPARTURE PROCEDURES

ORIG 11069 (FAA)

NOTE: **Rwy 13**, vehicle on road, 179' from DER, 237' left of centerline, up to 15' AGL/364' MSL. **Rwy 31**, vehicle on road, 77' from DER, 257' right of centerline, up to 15' AGL/384' MSL.

22 JUN 2017 to 20 JUL 2017

22 JUN 2017 to 20 JUL 2017

17173


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